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PHOTO-ERA

The American Journal of Photography

AN ILLUSTRATED MONTHLY

OF

PHOTOGRAPHY AND ALLIED ARTS

Volume XXII

JANUARY, 1909, TO JUNE, 1909, INCLUSIVE

PUBLISHED BY

WILFRED A. FRENCH

383 BOYLSTON STREET, BOSTON, U. S. A.

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PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXII

JANUARY, 1909

No. 1

PUBLISHED MONTHLY BY WILFRED A. FRENCH, 383 BOYLSTON STREET, BOSTON
Entered as Second-Class Matter, June 30, 1908, at the Post-Office at Boston, under the act of March 3, 1879

YEARLY SUBSCRIPTION - RATES

United States and Mexico, \$1.50. Canadian postage, 35 | Foreign, \$2.25. Single copies, 20 cents each. Always
cents extra. Single copies, 15 cents each payable in advance

ADVERTISING-RATES ON APPLICATION

WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

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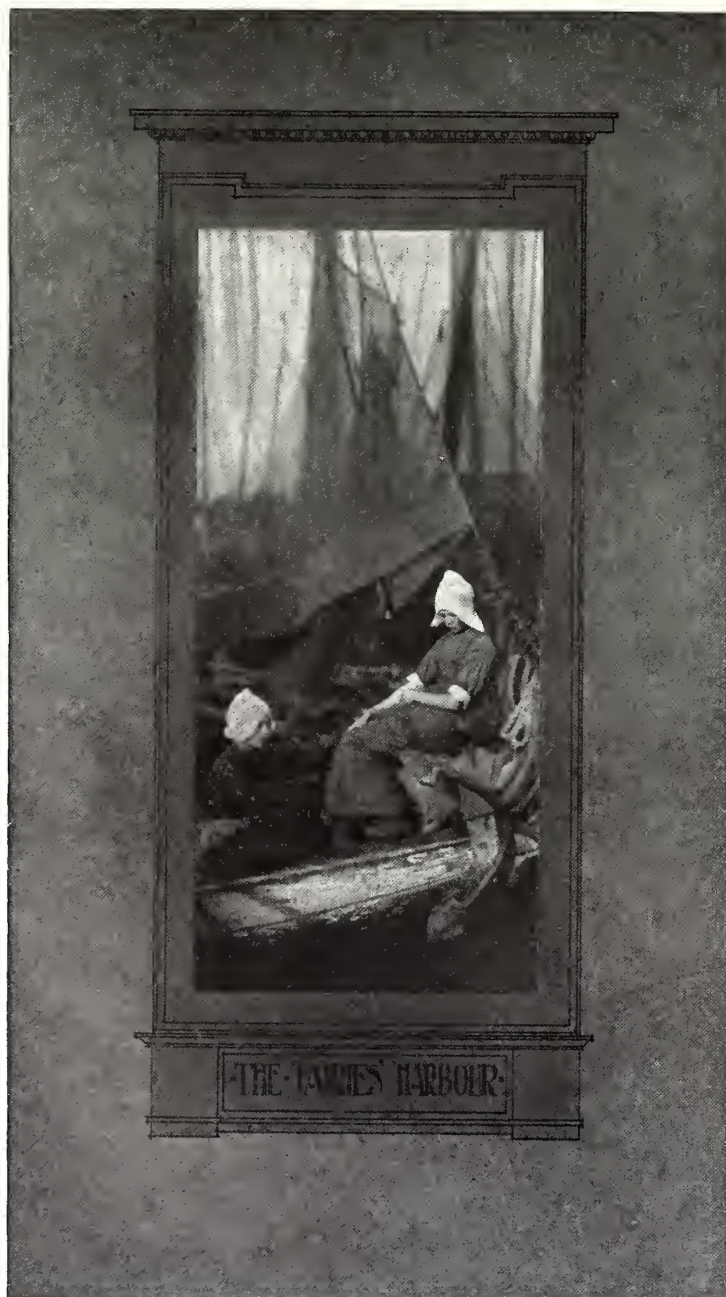
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JAMES MCKISSACK
THE FAIRIES' HARBOR
FIRST AWARD — GENRE CLASS



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Our Sixth Annual Contest

WILFRED A. FRENCH, PH.D.

IN reviewing the results of PHOTO-ERA's Sixth Annual Photographic Competition, our first consideration shall be given to the numerous workers who took the pains to enter pictures here. Prints were received from every section of the United States, from Canada, from England and even from far-off China and India. To contributors, one and all, we extend our sincerest thanks, especially those newcomers who, scarcely realizing the high standard governing the contest, and, doubtless, confident of some form of official recognition, spared neither time nor expense in preparing their entries. To the successful competitors we offer hearty congratulations. The chances of capturing a prize were much smaller here than in last year's competition, because of an improved system of classification and the consequent reduction in the number of prizes in each class. These changes made the task of the judges extremely difficult, but none the less agreeable; for the pictures passed upon by them were of a very high order of merit, and the awards, in nearly every case, were the result of unanimous approval. This, together with the high character of the jury and its able and faithful efforts, imparted to the awards exceptional significance, which will, undoubtedly, be appreciated by the successful competitors. As to the quality of the pictures submitted, it is a pleasure to record that not only had it surpassed that of every annual competition of this magazine, including the magnificent display of last year, but, with the exception of Classes A and F, it measured up to the highest standard of present-day photographic art in America. The judges, each an artist to his finger-tips, broad of view and sound and elastic in judgment, recognized the truth of the statement that "It is expressing the general effect of the whole which alone can give objects their true and touching characters; and wherever this is observed, whatever else is neglected, it is to acknowledge the hand of a master." The notion, however, that the end justifies the means, unless it accords with truth, found little sympathy with the jury. Instead, sincere appreciation of photography, as a legitimate and adequate means of art-expression, was always manifested in determining the degree of merit of each picture under consideration. That principle was never lost sight



HONORABLE
MENTION
GENRE
CLASS

HENRY A. PEABODY

'NEATH HOT ITALIAN SKIES

of. Thus, several very attractive pictures failed of official recognition because means had been employed not found in the photographer's lexicon. In one case a prize was awarded to a picture, the technical origin of which was determined only after considerable discussion. The number of prints of prize-winning caliber was astonishingly large. Embarrassing, indeed, was the task of the judges, who were confronted by an array of landscapes, marines and genres remarkably uniform in witchery of subject and beauty of treatment. Yet, actuated, as they were, by a sincere desire to be just, above all things, these gentlemen found ample jus-



PAUL FOURNIER
AN OLD ENGLISH CASTLE
FIRST AWARD — LANDSCAPE CLASS



tification in pronouncing their final verdict. No one will question their ability, their devotion, nor their honesty; and yet large is the number of disappointed competitors, who will, undoubtedly, prove themselves cheerful losers; for not even acknowledged leaders are perpetual winners. Like most photographic exhibitions and competitions, this contest gains certain contributors one year only to lose them in the next; and *vice versa*. Several pictorialists of rank, who were prize-winners in our contest a year ago, were conspicuously absent; viz., Eleanor W. Willard, Charles R. Phipps, D. H. Brookins and Katherine Bingham. Mrs. Willard returned from a long European journey only a few months ago, therefore could not participate; while the Messrs. Phipps and Brookins preferred to enter the lists of the Fifth American Salon. Among the new competitors in our Sixth Annual Contest who were successful are James McKissack, Maurice T. Fleisher, R. S. Kauffman and T. W. Kilmer. William H. Zerbe is the only one of the Honorable Mention class in our 1907 competition who was advanced to the rank of a prize-winner in the contest just closed.

The competition did not lack for curious coincidences. For instance, Charles Vandervelde, Louis Fleckenstein, Paul Fournier and S. S. Skolfield captured prizes in this as well as in the preceding contest, which shows that these artists have, at least, maintained their high standard of a year ago.

As proof of the absolutely conscientious and painstaking work on the part of the jury, no first prizes were awarded in portraiture and high-speed photography, as, in its opinion, no pictures in these classes quite measured up to the lofty standard it recognized in this particular contest. Viewing this collection as a whole, the dearth of portraits of striking merit is difficult to explain. It may be that many of our high-class practitioners imagined the contest to have been open only to amateurs or semi-professionals, although it had been announced, since last June, that the work of every legitimate photographer was eligible. However, with commendable sagacity the judges recommended that, in the absence of a portrait worthy the first prize, the amount of the award — twenty dollars — be divided equally among the winners of Honorable Mention in this class. The reason that the high-speed work failed to yield a first-prize example was because relatively few entries displayed pictorial qualities. However, most of the prints submitted in this class testified convincingly to the skill and daring of the operator. They were interesting records of exciting events and evinced the highest technical ability, but made no sympathetic appeal to the picture-lover. The artistic possibilities of high-speed work are not generally appreciated, it is true; and it was for the purpose of arousing interest in this neglected field that we printed an illustrated article on this subject, by C. H. Claudy. (See the April issue of PHOTO-ERA, 1908.)

As before stated, the recent contest surpassed all its predecessors in the artistic quality of the prints submitted, the number of mediocre pictures being never so small. The work of over two hundred workers was represented, of whom a large per cent was professional. Elsewhere in this issue will be found a list of competitors, together with the number of prints submitted.

Suitably arranged for inspection, the collection, composed of the successful and numerous other meritorious prints, presents an array of pure, logical art-expression through pictorial photography that is in the highest degree creditable to the American worker. No claims are made here for originality of conception or treatment through the medium of eccentricity based upon mental aberration, technical ignorance or wanton violation of art-principles. It is sufficient that high ideals governed every effort which, though not always suggestive of the divine spark of a master-genius, manifested an honesty and loftiness of purpose, an appreciation of pictorial design and a feeling that was sound, logical and refined. Gratifying, too, is the manifest determination to keep constantly in view the principle of simplicity in composition. This, in itself, is a source of strength and an indication of still greater achievement in the future. Professional art-critics, when using pictorial photography as a subject for magazine-articles, fail to realize the power and scope of the American worker. Those reviewers who continue in the belief that native pictorial activity is confined to one coterie of segregated enthusiasts should acquaint themselves with centers of endeavor and progress situated beyond the confines of New York City, and these—the latter—are well represented in the present PHOTO-ERA contest. It is again demonstrated here how resourceful are these camerists of the Middle West, for instance, in the management of unattractive and commonplace subjects, which, with taste and judgment, they know how to convert into visions of pictorial beauty. They have so trained their artistic perceptions as to detect artistic possibilities in quite unlikely places; and happily so, for in this manner slumbering talent is more effectually awakened than if it were to rove amid the beauty-spots of Old England. All the more credit, therefore, to the photographers who succeed in imparting pictorial interest to scenes on which the ordinary eye scorns to linger. This is the true art-spirit, born of necessity, and for that very reason it is safe to predict artistic development in communities which hitherto have excelled only in manufacturing and mercantile activity.

Turning our attention once more to the exhibit, we find that, contrasted with that of the preceding contest, the themes of the successful pictures showed greater variety and invention. Charles Vandervelde, whose work and personality formed the subject of a charming article by Eleanor W. Willard in PHOTO-ERA last June, again entered the contest with a group of masterpieces. Of these, six were landscapes, 10 x 12 bromides in warm gray, delicate tones, ravishing and mysterious, and splendid examples of his delightful individuality. But it was his only marine, "The Lumber Schooner," which won for him a first prize—in Class D. The spacing and management of the lines were admirable, and conformed to his well-known decorative style. The picture was full of suggestion and mystery, and made a strong appeal to the imagination. One could easily believe the craft to represent the "Phantom Ship" at anchor, temporarily deserted, its uncanny crew concealed within, and its wretched commander ashore seeking deliverance from his doom. The picture was a revelation of what a master can accomplish with a hackneyed subject. This same criticism may be applied to "The Swans," by Maurice

T. Fleisher, which was awarded the grand prize. There we had an odd, decorative effect, original and pleasing, and extremely felicitous in composition. The print was a large, straight gum from an enlarged film-negative, and again illustrated the theory that unaided photography should be accepted as the only true medium of the followers of the art; for in skilled hands it is capable of maintaining the dignity of an original, expressive vehicle. In his "Street-Scene in Venice" — reproduced in PHOTO-ERA several years ago — Mr. Fleisher again showed a fine sense of the pictorial, an intimate acquaintance with the laws of structural composition and an appreciation of harmony in the handling of masses and line. He is a master-technician, and the qualities of his tones are always consistent and agreeable.

For quaintness and beauty of conception, "The Fairies' Harbor" — recognized as the best in its class — certainly was one of the most attractive scenes perpetuated by the camera. Being printed in a low tone, which was relieved only by the white caps of the two maidens, the picture did not yield successfully to the attempt at reproduction. The artist, James McKissack, of Scotland, knew admirably how to blend the tangled mass of sails, masts and ropes into a soft and fitting background, against which were gracefully outlined the charming figures of his composition. The print gained much by being tastefully mounted, the full effect of which, however, has not been preserved in the half-tone reproduction.

Foreign in subject, but the work of an American, was the leading print in the landscape class — "An Old English Castle," by Paul Fournier. The subtle mystery, which is a characteristic feature of this artist's landscapes, was there quite pronounced. Although the exposure was made on an early July evening, the illumination was weak and the sky itself was somber — a condition which the artist's discerning eye did not fail to appreciate. He thus gave the quaint old building an effective and appropriate setting. It was a profitable study not only in chiaroscuro, but in the management of reflections, which in the composition of this picture figure prominently. The tone of the print — tastefully mounted — was a dull, deep carbon green, pleasing and restful, and harmonized admirably with the character of the subject. In extent Mr. Fournier's entry in this contest — thirty prints — was the largest of those which received recognition. His portraits revealed a fine perception of human character and a strong grasp of the subject's personality. Being already an excellent technician, Mr. Fournier may well aspire to a place in the front rank of our professional portraitists.

In "Harbor-Scene — Evening," S. S. Skolfield worthily distinguished himself. Admirably spaced and balanced, perspective — atmospheric and linear — perfectly preserved, and rejoicing in immaculate tone-values, the picture was as delightful an interpretation of a May evening on the water as could be expected from the brush of a master-painter. Mr. Skolfield is to be complimented on so noble a performance.

Is there a more common camera-subject than a boy fishing? Hardly; and yet he has been snapped at, photographically, many times. He is, frankly, not an inviting theme for the ordinary camerist. In comparison the newsboy and



WM. H. ZERBE

WEARILY WENDING THEIR HOMEWARD WAY
HONORABLE MENTION — ANIMAL CLASS

the bootblack offer a mine of artistic possibilities. It was left for George H. Scheer, among others, to discover the pictorial worth of the proverbial time-killer. On a Sunday morning — it could have been on no other day, for the button was pressed at 9.30 A.M. — the doctor-camerist came upon this trio. Whether the boys met their doom unconsciously, or whether they posed, matters little — the result was a success. The story was told with directness, simplicity and truth. Ordinarily a scene of this sort is attended by many distracting features; but, there, nothing prevented the gaze from being centered on the group of patient anglers, whose temporary occupation many a scribe must have envied. Dr. Scheer sent twenty-two prints divided among Classes B, C and D, all bearing testimony to his technical ability. He received Honorable Mention in Classes B and C.

Like Mr. Fournier, Louis Fleckenstein has lately become a full-fledged professional, and since 1907 has been settled in Los Angeles. Of his five portraits, "Study of Head and Hair," though not strictly belonging in Class A, was deemed worthy of recognition, but not the highest, among the portraits. While not, perhaps, in the artist's best vein, this picture had much artistic value and pictorial charm. Although straight and good photography, and yet only a study, it deceived several of the judges, who imagined it to be a copy of a painting. A compliment, certainly; and how will it be received by the artist?



CHARLES VANDERVELDE
THE LUMBER SCHOONER
FIRST AWARD — MARINE CLASS



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MENTION
GENRE
CLASS



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H. B. CONYERS

TITO

Few camerists with a penchant for wood-scenes succeed in catching the subtle, peaceful and alluring charm of a wood-interior as does William H. Zerbe. In no previous theme of this character has he seemed to have reached the clarity of design and depth of expression as in his prize-picture, "Woodland Brook." As a composition it was creditable in the highest degree. The course of the winding brook, each receding step marking its approach to the edge of the wood, was managed with consummate skill.

In the search of themes, the camerist constantly stumbles upon subjects that have been photographed to excess. Well, the painter is in the same predicament. The difficulty is in the management, in the treatment. How much better can you do than the other fellow?

The camerist who is a lover of animals cannot resist training his instrument upon a pair of fine horses, especially when one of them happens to be white. The object is to take the heads in perspective; but often the error is made of making the exposure when the heads of the horses are turned in one and the same direction. An equally serious mistake is to place the camera nearer the black horse. In either case the effect is bad. In his "Patient Slaves," accorded the second prize in Class F, R. S. Kauffman performed his task with unerring judgment and avoided both pitfalls. The result was superb and, aside from the admirable balance of the composition, the accuracy of perspective and the fine rendering of textures, it could not fail to make a sympathetic appeal to every lover of animals.

Reference has been made to the quality of the high-speed pictures submitted. The fact that such essays must possess pictorial quality to commend them to the favorable consideration of the jury was, doubtless, overlooked by all contestants, except one — T. W. Kilmer. We have steadfastly recognized the artistic possibilities of high-speed work in spite of the doubts and sneers of art-critics. Our contention has been proved on several occasions, but, perhaps, not so convincingly as in the recent contest. "The Vanderbilt Cup" refuted the counterclaim of the doubters. The element of chance, doubtless, aided the felicity of the artistic arrangement; but its absence would not have made Mr. Kilmer's effort an artistic failure. No one, except the artist, knew to what extent preparations had been made for a successful issue before the critical moment when the bulb was pressed. The picture spoke for itself. It represented consummate technical skill, rare judgment and a well-defined sense of the pictorial. In all these it was an unequivocal success. So much for the prize-winners.

In surveying the Honorable Mention class and, also, many equally meritorious pictures, one could not help wishing that more prizes had been provided. The originator of the competition felt, however, that, in order to give greater value to the contest-honors, the latter must be limited. The judges were of the same opinion. The readers of PHOTO-ERA are acquainted with Fedora E. D. Brown as a clever professional portraitist. That her essays in the field of landscape-photography are equally creditable was evidenced by her single entry in Class E, entitled "Landscape." The picture, a finely-executed gum, exhibited admirable technical qualities and much poetic feeling. It was natural and easy in composition and pleasing in delicacy of treatment. A fourteen-inch panel portrait, enlarged from a cabinet negative and entitled "Marion," was among the finest things she has done in the domain of portraiture.

Undoubtedly the most striking portrait entered in this contest was a character-study by E. O. Hoppé, of London, England, entitled "The Turf." Not a second glance was needed at the cold, calculating eye to convince one that there was a man who could always pick the winning horse. The head was solid,

plastic and well modeled, showing the skilful use of a suitable objective. (A review of Mr. Hoppé's work and his personality, from the pen of a prominent English artist and author, will appear in an early edition of PHOTO-ERA.)

"Wearily Wending Their Homeward Way," by William H. Zerbe, seemed to fulfil every requirement of a perfect picture. In harmony of line, truth of perspective and preservation of values the result was eminently gratifying. Aside from the fact that it demonstrated the ability of a high-class technician, this Honorable Mention picture made a stronger sympathetic appeal than his more successful "Woodland Brook." In design, execution and pictorial beauty Mr. Zerbe's pastoral compared favorably with a masterpiece by Jacque or Mauve.

H. B. Conyers, who made a ten-strike last year with his "A Mashed Finger" — reproduced in PHOTO-ERA for February, 1908 — left the real operating-room, one day, and caught the Sicilian fiddler "Tito" as he reached out to catch the falling coin after his thrilling performance of Mascagni's "Intermezzo." Full of action, that; graphic in portrayal and finely done. Nevertheless, the effect might have been improved had the artist contrived to place his figure more to the right, with a wider margin on the opposite side.

Gustave F. Swenson, a newcomer, narrowly missed receiving a prize for his "Kite-Flyer." A pity that the design of the picture did not provide more margin at the right of the figure. Otherwise, it was a faultless performance. Admirable, indeed, was the texture of the boy's shirt, which had caught the light of the evening sun. The element of suggestion was also to be highly commended.

The human touch in "Waifs" stamped its author, Horace Parks Lane, as a felicitous interpreter of childhood themes. Unfortunately, the palatial surroundings seemed to intrude themselves as a false note in the composition; but they could easily be connected with the story as emphasizing the contrast between poverty and wealth, weakness and strength. All the same, the obtrusiveness of the background was to be regretted.

The delicately-moulded figure with its roguish expression, "Strayed from Elfland," made a pleasingly original effort on the part of Mary Louise Bryant, hitherto a stranger to our contests. It well illustrated the possibilities of the camera in the home, with tools and accessories entirely unprofessional.

In "'Neath Hot Italian Skies," Henry A. Peabody, always with an eye for the picturesque, represented a species of toil that probably is as oppressive as the heat that prevails in fair Italy. The episode, as well as its setting, was graphic enough. The composition, however, seemed to lack a feeling of unity, which might have been imparted by judicious treatment in manipulating the negative.

"The Planters," by Charles Turpin, was boldly conceived, although the theme and its treatment were quite reminiscent of Millet. The silhouetted figures and the lower half of the picture were in a very low tone, but rendered with sufficient differentiation, which, however, is wholly lost in the reproduction. It is next to impossible to interpret successfully certain shades of sepia by the half-tone process, an inadequacy sincerely to be regretted in this instance.

"Doña Isabella," by the Misses Parrish, was the most acceptable of a goodly number of genre studies, and possessed, in a measure, simplicity and repose. One could not refrain from admiring the careful and elaborate preparation and fecundity of invention of these industrious workers as manifested in their pictorial efforts. The themes which engaged their attention were interesting on account of novelty and refined treatment, but lacked spontaneity in composition and simplicity in expression; they also showed the result of studious examination of the early Florentine school of painting, but, more particularly, its latter-day imitators — Burne-Jones, Rossetti, Beardsley and others. Not a healthy diet, to be sure; nor one calculated to promote vigor and clarity of design and directness and sincerity of expression.

Among the six classes represented in this contest, the province of genre photography was nearly as strong, in number of entries, as the landscape-work, and never of so varied and distinctive a character. Mrs. Nancy Ford Cones—last year's winner of the grand prize—entered a number of very interesting pictures showing her sustained industry and wealth of invention, but they did not evince the spontaneity of expression that characterized her work a year ago. Her "Kitty's Breakfast" belongs to that period and, therefore, was picked as the best of the group, but was obliged to yield the higher honor to Mr. McKissack's "The Fairies' Harbor." Mrs. W. W. Pearce's picture also appeared to lack the winning quality, for in spite of admirable technical traits it failed to make the usual favorable impression.

Space forbids detailed description of the remaining pictures in the Honorable Mention class, every one of which possessed qualities of distinction. They were as follows:

In Class A: "Girl with Muff," C. F. Clarke; "Portrait of a Lady," Helen W. Clogston; "Billy," Clare J. Crary; "Profile Study," Paul Fournier, and "Mrs. C. and Children," A. F. France.

In Class B: "At the Bench," William H. Arnold; "Central 444, Ring 2," Will D. Brodhun; "Strubbly Head," H. L. Bradley; "Waiting," Margaret B. Craig; "Memories," T. D. P. Cummins; "Revery," Paul Fournier; "The Drink," Mrs. Charles S. Hayden; "Overalls," Arthur W. Higgins; "Bait," O. E. Kennedy; "The Toilers," William T. Knox; "Summer," Harry M. Lord; "Go Get It!" Frank C. Price; "Good-By, Daddy," John J. Reilly; "The Christmas Turkey," W. A. Rheinheimer; "Viewing the Pageant," Geo. H. Scheer, and "Meditation," Harold A. Thurlow.

In Class C: "Night's Shadows Gloomy," Arnold M. Bennett; "Indian Summer," R. C. Chapman; "Apple-Blossoms," William B. Groff, Jr.; "The Long Day Closes," T. L. Mead, Jr.; "Arch and Tower," Claude Davis Millar; "Winter Lights and Shadows," Geo. H. Scheer; "Full Many a Flower Is Born to Blush Unseen," William Spanton, and "Fast Falls the Eventide," Charles Vandervelde.

In Class D: "The Glint," Albert R. Benedict; "Sunrise on Lake Michigan," Alfred L. Fitch; "The Long Bridge," William T. Knox; "London



CHARLES TURPIN

THE PLANTERS

HONORABLE MENTION — GENRE CLASS

Bridge," James McKissack; "The Old Dock," Geo. H. Scheer; "No Breeze, No Tide," William H. Zerbe, and "Tied Up," Charles C. Zoller.

In Class E: "Swans on Public Garden," A. Wayland Cutting; "The Swan," Alfred L. Fitch; "Monte," A. F. France, and "Bossie," Alfred Merz.

Chief among the competitors whose work was also extremely meritorious, although not honored, officially, were the following:

Jane Reece, Mary H. Mullen, D. H. Day, Hallie Wilson and Tovell Marston — Portraits; Mrs. W. W. Pearce, Helen P. Gatch, Nick Bruehl, Laura Reeve, Ira D. Schwarz and Mrs. Geo. L. Gilbert — Genre; W. A. Rawson, Ernest P. Seabrook, R. I. Dils, John Hage, J. H. Field, H. E. Harnden, Mary Brigham Hill, H. C. Mann, Louis R. Murray, Elizabeth R. Allen, Edgar S. Gage, Geo. S. Currie, F. E. Bronson, R. L. Stephenson, Mrs. M. M. Wright, L. M. Poarch, C. Ney Pickering and C. Burnham — Landscapes; N. Brock — Sheep; Chas. Quinn and James Daniel Miller — Marines; Percival H. Mitchell, Shirley Vance Martin and A. B. Hargett — Portrait and Landscape; H. R. Gebhardt — Genre and Marine.

The most imposing entry of the competition was a group of wood-interiors, winter-scenes and landscapes, by Theodore Eitel. These attractive subjects



T. W. KILMER

THE VANDERBILT CUP

SECOND AWARD — HIGH-SPEED CLASS

were presented in the beautiful, rich tones of carbon and Platinotype, displaying this artist's rare powers of interpretation. Conspicuous among the wood-scenes, for beauty of composition and sumptuousness of color, was a 13 x 16 carbon, "The Beaches." A little more originality of design in his compositions, and Mr. Eitel would easily rank among the leading pictorialists of the day.

Several large gum-prints in multicolored tones by George C. Elmberger marked that artist's entrance into a relatively new field. These were not in one color, like those made by Henry Ravell or Edward Steichen, but resembled, rather, monochromes relieved by touches of color to heighten the effect of the whole. Mr. Elmberger's subjects were landscapes and were masterly in composition and poetic suggestion, but it was not obvious that the gum-process, as used by him, is an entirely successful means of artistic interpretation. No doubt an artist of his ability and experience will not be long in attaining perfection in so attractive a medium of art-expression.

As was the case in our 1907 contest, enlarging on bromide paper was the favorite printing-medium, followed closely by direct platinum-prints and development-papers. There were fewer carbons, and gum-bichromate disclosed but four devotees. To what extent the various printing-mediums were used by the prize-winners may be seen under "Our Illustrations." A collection composed of the successful and many other meritorious prints of this contest will be exhibited, in January, in Cobb's art-store, Boston, and, about February 1, in the gallery of the Camera Club of New York.



LOUIS FLECKENSTEIN
STUDY OF HEAD AND HAIR
SECOND AWARD — PORTRAIT CLASS



Awards in the Photo-Era Annual Contest

GRAND PRIZE

Maurice Tracey Fleisher

CLASS A — PORTRAITS

Second Award: Louis Fleckenstein

Honorable Mention

Fedora E. D. Brown
C. F. Clarke
Helen W. Clogston

Clare J. Crary
Paul Fournier
A. F. France

E. O. Hoppé
W. & G. Parrish

CLASS B — GENRE STUDIES

First Award: James McKissack

Second Award: George H. Scheer, M.D.

Honorable Mention

William H. Arnold
H. L. Bradley
Will D. Brodhun
Mary Louise Bryant
Nancy Ford Cones
H. B. Conyers
Margaret B. Craig
T. D. P. Cummins

Paul Fournier
Mrs. Chas. S. Hayden
Arthur W. Higgins
O. E. Kennedy
T. W. Kilmer
William T. Knox
Horace Parks Lane
Harry M. Lord

Henry A. Peabody
Frank C. Price
John J. Reilly
William A. Rheinheimer
George H. Scheer, M.D.
Gustave F. Swenson
Harold A. Thurlow
Charles Turpin

CLASS C — LANDSCAPES

First Award: Paul Fournier

Second Award: W. H. Zerbe

Honorable Mention

Arnold M. Bennett
Fedora E. D. Brown
R. C. Chapman
Theodore Eitel

Maurice Tracey Fleisher
William B. Groff, Jr.
T. L. Mead, Jr.
Claude Davis Millar

George H. Scheer, M.D.
Wm. Spanton
Chas. Vandervelde

CLASS D — MARINES

First Award: Charles Vandervelde

Second Award: S. S. Skolfield

Honorable Mention

Dr. A. R. Benedict
Alfred L. Fitch
William T. Knox

James McKissack
George H. Scheer, M.D.

William H. Zerbe
Charles C. Zoller

CLASS E — ANIMALS

First Award: Maurice Tracey Fleisher

Second Award: R. S. Kauffman

Honorable Mention

A. Wayland Cutting
Alfred L. Fitch

A. F. France
Alfred J. Merz

William H. Zerbe

CLASS F — HIGH-SPEED WORK

Second Award: T. W. Kilmer



MAURICE TRACEY FLEISHER

GRAND PRIZE
FIRST PRIZE — ANIMAL CLASS

THE SWANS

The Coloring of Lantern-Slides

EDWARD LITTLE ROGERS

IT has been well said that "the artistic coloring of a lantern-slide transforms it from a mere illustration into a picture."

The reflection of the sunlight from a gravel road, a grassy meadow, or the untrodden snow, the sparkle of rippling water, the blue sky of the usual "bald-headed" landscape, and the delicate colorings of my lady's dainty gown all have practically the same color-values in the ordinary slide, whether it be in black and white or in monochrome. It is the province of color to enable the subject shown on the screen to simulate the tints of nature. The underlying black or gray silver deposit of the slide so modifies the applied colors that, often-times, the colorist can only suggest, by contrast, the actual colorings. For pictorial work coloring is invaluable; for scientific work it is indispensable.

Any person can color a lantern-slide; he who has a right perception of color, a natural or acquired artistic taste, a delicacy of touch, and a love for the work can achieve the best results. These suggestions are not written for the professional colorist, who must be fully equipped with knowledge and materials to enable him to color any slide which may come to him, whether it is a wet-plate or dry-plate, collodion, gelatine, or albumen, bromide or chloride, carbon or ozobrome, but for the amateur who makes his own lantern-slides upon commercial gelatine dry-plates. The better the negative, the better the resultant slide, but the best work can be done only on technically-perfect slides. Such a slide should be brilliant, but not hard, full of soft gradations, only the highest lights of clear glass, the deepest shadows full of detail and not too dense to prevent the printing of this page being read through them. I recommend a fixing-bath of one part bisulphite of soda, five parts hyposulphite of soda, and fifteen parts water, with little or no alum, only enough to prevent the film working to pieces under the delicate handling of the brush.

Two processes of coloring are in general use — water-colors and oil-colors. Equally good results can be had by either method. By either process the colors must be as transparent as possible, for an opaque pigment put upon a slide, by intercepting the light from the lantern, will appear as black upon the screen.

The water-color process is the quicker and easier way. Not much is absolutely required for apparatus — principally patience, a little water, and more patience; incidentally, a few colors, brushes, a generous piece of old cotton cloth free from lint, a recessed china palette, or, preferably, a set of small china saucers, a tumbler of water, a low table in front of a window, free from direct sunlight, through which a bit of clear sky can be seen, a sheet of white paper, a negative drying-rack, a steady hand (not supplied by dealers) and — patience. A retoucher's stand and other impedimenta can be added or dispensed with.

For colors, three, red, blue and yellow, are enough, as all other tints can be made from these; but it will be found convenient to have a variety ready pre-

pared for use. All the colors especially recommended by their makers for lantern-slides which I have tried, I have found to be good. In common with most professional colorists, I make my own colors, and I have named them cerulean blue, Prussian blue, yellow, orange, grass-green, olive-green, bottle-green, golden brown, sepia, burnt sienna, crimson, scarlet, purple, and violet-gray. I fill my saucers with these colors attenuated with water to almost the last degree, fully one hundred parts of water to one part of saturated solution of color. Use any make of colors very thinly diluted with water and get the necessary depth by many successive coats, each applied after the other is dry — hence, water and patience, and much of the latter. In no other way can excellence be attained.

For brushes, use Winsor & Newton's round water-color sables with ebony handles — one each of Numbers 1, 3 and 6 are indispensable; Numbers 0, 2, 4 and flat Number 7 are useful. Always use the largest brush possible for the work to be done, but remember that extreme accuracy of touch and covering must be had, as any encroachment of color is plainly seen upon the screen, and a line upon the slide as fine as a hair may be magnified to the size of a rope. The color must be worked into the gelatine to some extent, but the brushes must not be allowed to break or mar the surface. Use plenty of water, but do not let it dry on the slide in drops. Keep the cotton cloth in your lap and use it freely to discharge color and water from the brush, and use the brush to absorb the superfluous color and water upon the slide. Before applying another coat of the same or other tint let the surface dry thoroughly. Keep the colors in the saucers pure and do not insert a brush already charged with one color into a saucer of another tint.

Put the table against the window with the sheet of white paper so that the light of the sky shall be fully reflected from the paper through the slide to your eye. Take in the left hand a slide, which we will suppose to be a landscape with a blue sky; fill the Number 6 brush (or Number 7 flat, if you have one) with water and go rapidly over all the sky and encroaching objects, quickly discharge the water on the cloth and fill the brush with the very dilute sky-color, and, if the sky is to be of a uniform tint, cover the whole surface rapidly, evenly and delicately with the color; usually the trees can be covered, but never houses or figures. The brush must be moved back and forth rapidly the full length of the sky. It must not be allowed to stop on the surface an instant, and the pressure must not be enough to disturb the softened film. If the top of any tree has been colored, the whole of the foliage of that tree should be covered before the slide is placed on the rack to dry. If the blue of the sky is to grade downward to nothing, or to a yellow or pink, put the blue only on the upper part of the sky, quickly discharge the color from the brush and with plenty of water gradually work the tint downward to clear water.

Because of the time required for a slide to dry, and because of a certain manipulative dexterity, it is well to have a dozen or more slides in process of coloring at the same time, and to work one color through the series. Keep the saucers of color covered, except when in actual use, to exclude dust.



FEDORA E. D. BROWN

LANDSCAPE

HONORABLE MENTION — LANDSCAPE CLASS

Next, using as large a brush as can be handled, Number 6 if possible, certainly not smaller than Number 3, tint all foliage, certain shadows, parts of rock-work and other places, which require it, with a very diluted coat of grass-green. Follow successively with very dilute golden brown, burnt sienna and bottle-green, letting the slides dry between each coat. In a general way, the slides should show now the color-effect the worker intends the finished slide shall have. Apply a second and third coat of these five colors in the same way; then follow, one by one, throughout the series, with diluted coats of each of the remaining colors in your outfit. Nearly all the slides will be improved, somewhere, by the addition of a touch of every diluted tint; a few slides may not require all. After applying two or three more coats from the entire series, the slides can be completed, one by one, by giving them the additional and special strengthening they will require. Greens and yellows need many more coats than reds and browns. Yellow and purple are the most difficult to handle. On the usual slide yellow is shown as a full half-tone or darker; the silver deposit of the photograph, showing through the coats of yellow, will generally appear on the screen as green. This can be corrected by retouching on the negative to make a lighter

tone on the slide, or can be helped by first coloring the dark tones with yellow-brown and finishing with orange. Purple, being made of red and blue, will not stand much working in, and should be placed accurately where it is to remain and be left untouched; otherwise, the blue will work out and a red blotch remain.

Always finish the coloring of a slide by artificial light. The best results can be attained by using many coats of very dilute colors of many tints. This requires water and patience.

When the colorist has attained a reasonable facility in the use of the water-color process he can take up more easily the oil-color process. Nearly the same outfit is required, except that turpentine, copal or mastic varnish, megilp and drying-oil take the place of water. A sharpened stick, like a meat-skewer, is needed. I prefer cover-glasses to saucers upon which to mix the colors, of which only the smallest quantity should be mixed at a time, to save expense and prevent the accumulation of dust-particles, which are annoying and fatal to excellence in this process. For larger brushes I use those which have been worn out in the water-colors, and the same kind of smaller brushes as before directed. For colors, use Winsor & Newton's Oil-Colors. Only transparent colors can be used, and among these the following and many others will be found useful: Prussian blue, Chinese blue, gamboge, yellow lake, brown-pink, raw sienna, burnt sienna, mummy, sap-green, alizarine-carmine, magenta, crimson lake, rose madder, purple lake, mauve No. 2 and ivory black.

The colors are to be mixed with whichever medium the worker may prefer, and this he can determine by practice. The best results are attained by one quick and accurate application of the color of the desired tint and depth of tone, placed where it is to remain and left undisturbed until dry. Any meddling with it injures its transparency and makes the color muddy. Additional depth can be had by successive coats, each applied after the preceding one is dry; and, as a natural drying would take several days, recourse is had to artificial means. I put my painted slides in a small, tin cracker-box in which I have placed a corrugated rack. This box I put in the moderately-heated oven of the kitchen range and leave it there twenty minutes, more or less, until the slides are dry. If the oven is too hot, or the slides are left in too long, the colors and the gelatine film will burn.

Large areas of plain surface without much detail, such as skies, maps and some architectural subjects, should be colored first by applying a daub of color and fingering it to an even tint with quick, delicate taps of the ball of a finger which has been rubbed smooth on a piece of pumice. Encroachments of color are to be removed, before the tint is dry, with the sharpened skewer, or by twisting a piece of chamois around the end of the skewer and moistened with turpentine. The regular stumps used in crayon-shading are convenient for this purpose.

The great enemies of success in this process are dust and a lack of patience. With plenty of patience the finest results are attainable.



DR. A. R. BENEDICT
THE GLINT
HONORABLE MENTION — MARINE CLASS

GUSTAVE F. SWENSON
THE KITE-FLYER
HONORABLE MENTION — GENRE CLASS



Carbon Effects on P. O. P.

WILLIAM FINDLAY

SOME time ago I saw a few exquisite prints which gave one the impression that the results were attained by the carbon process, but they were P. O. P. prints toned to a warm brown color, and it was the after-treatment which brought about the carbon-like effect. I could not help admiring them, and wondered how such an artistic result had been arrived at. I recollected having read somewhere about it, but could not lay hands on the article in which the subject was treated. What I remembered was that if prints on glossy P. O. P. were squeegeed onto ground-glass this effect was secured. A simple enough procedure, some readers may say, and so it seems; but before I got anything to please me some difficulties had to be overcome, and the recital of these may help others to surmount them easily.

The first requisite was a piece of finely-ground glass, or matt celluloid. What I got was a half-plate focusing-screen, which cost ten cents. The first one procured had some markings on its surface which were thought to be immaterial, but on a first attempt it was found that these markings were transferred to the print. The glass was returned to the store-keeper and a search was instituted among his stock for one absolutely flawless.

The ground-glass was dusted with French chalk, which was well rubbed into it with a piece of fine linen. A P. O. P. print which had been taken from the toning-bath when it attained a certain shade of red, and which in the fixing-bath had assumed a brownish tinge, was selected for treatment. It was lifted from the washing-water and squeegeed onto the ground-glass. This was placed where a current of air could pass over it, and next morning the print was found quite free from the glass. It certainly bore some resemblance to the prints I had admired, but when viewed in certain lights one could see that it had absorbed on its surface the residue of the French chalk, though it was thought that this had been effectually got rid of beforehand.

Without any further treatment of the glass another print was soaked in water and firmly attached to it — too firmly, in fact, for it required hot water, soap and a hard brush to effect its release, and, of course, with this harsh treatment the print was entirely ruined. When the glass was thoroughly dry more French chalk was applied, dusted off, and the surface polished with chamois leather. The print was successfully treated, but still a slight trace of the polishing-substance appeared on its surface, and success was not yet achieved.

Then formalin was thought of. A print was immersed in a ten-per-cent solution for five minutes, and then attached to the glass. The experiment was not quite successful, but showed that the right track had been struck. A goodly portion of the print came away all right; but at one end it stuck, and in the attempt to pull it away the paper was torn. Probably some haste might have been responsible for this; or it might have been the case that the gloss had not been



DR. GEORGE H. SCHEER
FISHERMEN THREE
SECOND AWARD — GENRE CLASS

R. S. KAUFFMAN
PATIENT SLAVES
SECOND AWARD — ANIMAL CLASS



HONORABLE
MENTION
GENRE
CLASS



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HORACE PARKS LANE

WAIFS

thoroughly cleansed prior to the attachment. Before a second attempt with formalin, therefore, the glass was thoroughly scrubbed with a nail-brush and soap and water; and after the print selected had been squeegeed on, ample time was allowed for it to become thoroughly dry. The print did not come away of its own accord, but a corner was lifted with a pen-knife and the rest peeled off quite readily. Success was attained at last. Not a speck appeared on the picture, the sheen on the surface was like silk, the tone appeared richer, but, most wonderful of all, the photograph assumed an almost stereoscopic effect.



E. O. HOPPE
THE TURF
HONORABLE MENTION — PORTRAIT CLASS



Having now successfully surmounted the difficulties, as I thought, I turned my attention to more pressing matters and had no cause to adopt the procedure for some time. A batch of P. O. P. prints had to be toned recently, however, and after this had been done and they had had sufficient washing it was thought advisable, in view of this after-treatment, to harden the surface with formalin. One of them was squeegeed onto the ground-glass while the rest were put away to dry. It came away perfectly. Some time afterwards another was tried. It was placed in water for some time and then placed in contact with the glass. It adhered nicely, and, like its predecessors, was placed where a current of air could pass over it. In the course of a couple of hours, however, it lost its hold and slipped off the glass. Instead of the silky surface, it had a piebald appearance, some parts retaining the original gloss and others showing that the ground-glass had gripped. The print was again wetted and attached, but a like result followed. The formalin in the process of drying had made the print almost impervious to water and also caused it to lose the elasticity necessary for close juxtaposition. This showed that treatment with formalin *immediately* prior to placing the print on the glass was the only road to success; and to further verify this, a print that had not been previously hardened was placed on the ground-glass directly from the formalin bath. Another carbon-like effect was secured.

In conclusion, it may be stated that, besides glossy P. O. P., gaslight and bromide paper with this surface can also be treated in the same way; and a print by the former method, that is before me as I write, has the appearance of an exquisite steel engraving. P. O. P. is now put upon the market in many grades, and some of these give very artistic results without any after-treatment such as is here detailed; but although the glossy variety gives excellent tones and produces the minutest detail, many workers fight shy of it. Possibly they think that the taint of the novice lingers about any work thus produced, because most initial efforts are presented to admiring — or bored — friends thus. But by this method an artistic value is given to a print which places it on a level with the results obtained by costlier and more intricate processes; and it gives a finish that pleases the eye and is certain to attract attention and patronage.



Enlarged Negatives from Transparencies

JOSEPH KNAFFL

THERE is quite a difference between the regular lantern-slide transparency and the one from which a negative should be made. A great many photographers are now making a cabinet negative of busts or groups, retouching and working in any fancy background, then making a good, crisp transparency, and enlarging from this almost any size negative, which is a great saving of plates, developing, etc. A great deal of effective work can be done on this transparency before making a negative.

The most important thing is to get a plate which has a smooth grain and medium sensitiveness. Now take a regular printing-frame the size of the negative and cover it with about four or five thicknesses of tissue-paper. See that the tissue is smooth; then put a clean glass in the frame with the negative on top of this and the sensitive plate on the negative the same as developing-paper would be placed.

Making transparencies is very much like printing developing-paper, and they can also be vignetted the same as a print. This work should be done in the dark-room, where you can govern your light. The printing-frame now contains tissue-paper, plain glass, negative and sensitive plate. Turn down the gas or electric light about one-half before exposing, cover your frame containing the negative, etc., with cardboard, open your dark-room window and expose from five to fifteen counts. One is more apt to over-expose than to under-expose.

The developing should be done with an old developer, and the image should appear slowly, which will ensure fine grain with plenty of detail and strength. If the image comes up very rapidly, it denotes too much exposure or that the developer is not old enough. The most important thing of all is using old developer in place of fresh, adding very little fresh to old if you have many to make, also if the transparency comes up too slowly, like an undertimed negative.

A little experience will give you good results. A very good way is to make several transparencies from the negatives in the dark-room, giving them different exposures, varying from ten to twenty seconds.

A good transparency should look, to one familiar with them, like a good negative — full of detail and gradation. After retouching a little the transparency is ready for enlarging. This is done in the same manner as copying a picture, only it is suspended between camera and window, say twelve to fourteen inches from a window which is of ground-glass, or a frame 10 x 12 fitted with ground-glass, with two screw-eyes fastened at the top, so you may slide it from one end of the window to another on a wire for convenience. The ground-side of the glass should face the lens and the glass-side of the transparency should be from six to twelve inches from the ground-glass to avoid copying the granular effect.

Tissue-paper can be used, if of fine quality, and in several thicknesses. This, however, becomes yellow and soiled in a short time, while ground-glass can be cleaned and depended upon.

Another important thing is to exclude, as much as possible, the strong light between transparency and lens, which comes in from both sides. This can be done easily by placing a background so as to cut off the strong light.

We have now the transparency, as said before, hanging in front of a ground-glass several inches away and are ready to focus and enlarge to the size wanted. The exposure of this negative depends greatly upon the density of the transparency, and the size stop used, and should be handled in developing the same as developing a transparency, adding a little new developer if it comes up heavy and strong. It is best not to use too much old developer, say an ounce of old to three ounces of new, so that the shadows will not be too strong.



S. S. SKOLFIELD
HARBOR SCENE — EVENING
SECOND AWARD — MARINE CLASS



In the focusing of a cabinet head to an 11 x 14 or larger do not get it too sharp; draw the focus a little front. It will at once soften the entire negative with beautiful effects. The retouching will be very little, and when printed on rough paper gives the effect of a beautiful mezzotint.

This is very interesting work when properly done, and one cannot tell the difference between a direct negative and one made from a transparency. In fact, I think in a great many ways the latter is superior.

Remember you cannot make a good negative from a transparency which is too thin; it must be much stronger than those used for lantern-slides. After a little experimenting you will find this work very easy to do.



A New Lens Calculator

A. LOCKETT

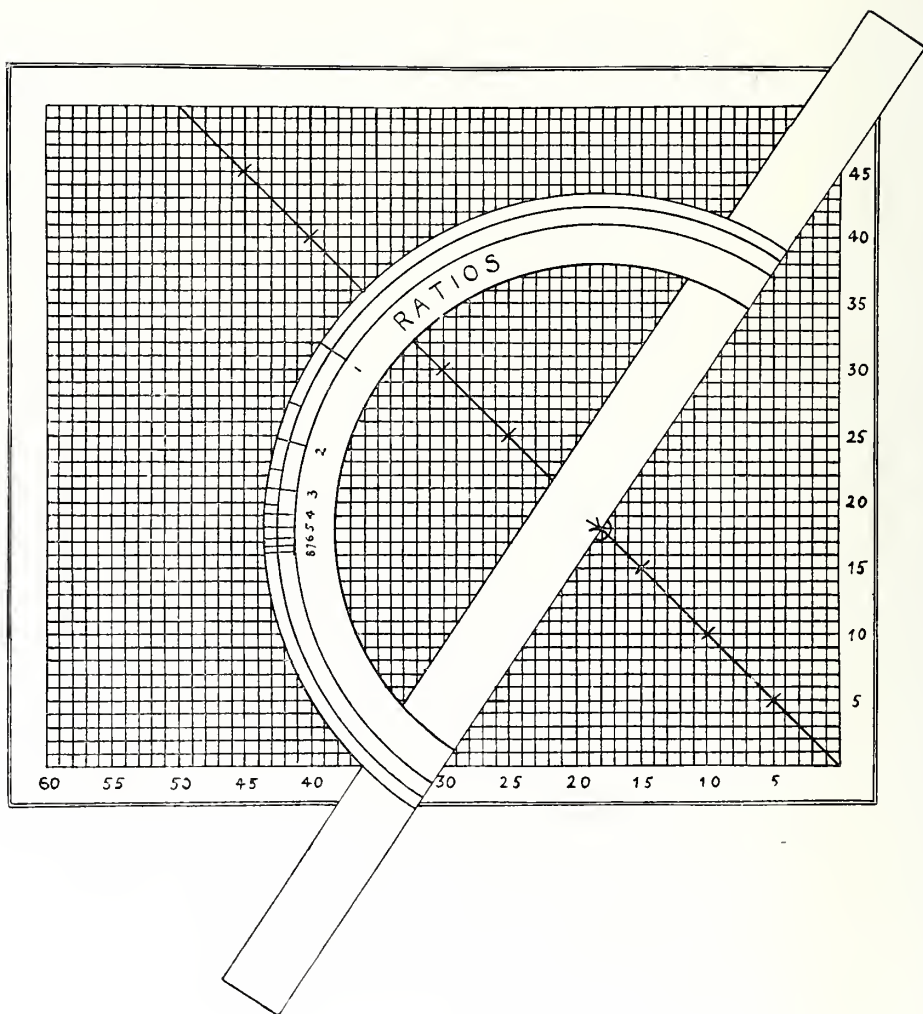
THE lens-calculator, a model of which is shown in the scientific and technical section of the Royal Photographic Society, at London, is intended for quickly and automatically solving various problems in photographic optics, particularly those practical questions which occur in the ordinary worker's daily experience.

As will be seen by the illustration, it consists of a rectangle divided into squares, and numbered at the bottom and right-hand side at every fifth division. From the right-hand corner is drawn a diagonal line at an angle of forty-five degrees. A slot is cut through this line, and a combined ruler and protractor is pivoted at the center so as to move freely up and down the slot, and also to revolve on the pivot. In its simplest form, which is chosen for description, the protractor may be marked with a scale of ratios, as illustrated. The model shown at the R.P.S. is, however, graduated somewhat differently.

To give a few examples of its use: Suppose it is desired to find the focal length that results from placing two lenses in contact, one of 30-inch and the other of 45-inch focus. The ruler is placed against 30 on the horizontal scale, and against 45 on the vertical scale. The center, or pivot-point, of the protractor will then indicate the focal length of the combination where it touches the diagonal line — i.e., eighteen inches, as read in a straight line from either the vertical or the horizontal scale. The illustration shows the solution of this problem.

If it is desired temporarily to alter the focus of a lens to a given extent by the use of a supplementary lens, place the ruler on the figure corresponding to the original focus on the horizontal scale, and set the protractor center against the required focus on the diagonal line. The other end of the ruler then indicates the necessary focus for the supplementary lens in the vertical scale.

The scale of ratios on the semicircle indicates the relation between the size of the object and that of the image; between negative and enlargement; copy and reduction, etc. Suppose it is intended to make an enlargement from quarter-plate



to whole-plate, with a lens of 6-inch focus, and it is wished to ascertain the necessary distances between lens-center and negative and lens-center and easel — in other words, the conjugate foci. The center of the protractor is placed against the lens-focus (6) on the diagonal line, and the protractor is revolved on its pivot until the ratio 2 is also over this line. The ruler then indicates, on the vertical and horizontal scales respectively, the required distances.

There are many optical problems which can be solved immediately by this appliance; among others, the measurements of objects can be estimated from photographs, the equivalent focus of a lens ascertained, and so on. The above examples will, however, probably suffice for a brief notice.— *The Amateur Photographer and The Photographic News*.



WM. H. ZERBE

SECOND PRIZE — LANDSCAPE CLASS

WOODLAND BROOK

Our Illustrations

THE EDITORS

"THE FAIRIES' HARBOR," by James McKissack. Data: September, 9 A.M.; good light; Zeiss lens, $f/6.3$; $\frac{1}{25}$ second exposure; Imperial Ortho plate; M. Q. developer; enlargement on cream bromide.

"'Neath Hot Italian Skies," by Henry A. Peabody. Data: September, 8.30 A.M.; bright sun; B. & L. R. R. lens, $6\frac{1}{2}$ -inch focus, $f/8$; $\frac{1}{100}$ second exposure; Eastman film; pyro tank development; enlarged print on Royal bromide.

"An Old English Castle," by Paul Fournier. Data: August, 6 P.M.; bright sunlight; Turner-Reich lens, 7-inch focus, stop U. S. 8; 2 seconds exposure; Cramer Slow Iso plate; Ortol developer; Artura Carbon Green print.

"Wearily Wending Their Homeward Way," by William H. Zerbe. Data: July, 6 P.M.; fair light; Goerz lens, $8\frac{1}{4}$ -inch focus, $f/5.8$; $\frac{1}{50}$ second exposure; Cramer Iso plate; pyro-acetone developer; carbon print from enlarged negative.

"The Lumber Schooner," by Charles Vandervelde. Data: September, forenoon; very smoky; Isostigmat lens, 5-inch focus, $f/5.8$; $\frac{1}{10}$ second exposure; Eastman film; pyro developer; Rotograph bromide enlargement.

"Tito," by H. B. Conyers. Data: March, 2 P.M.; dull light; Tessar lens, used wide open; $\frac{1}{4}$ second exposure; Kodak film; pyro developer; bromide enlargement.

"The Planters," by Charles Turpin. Data: April, 4.30 P.M.; good light; single meniscus lens, $3\frac{1}{2}$ -inch focal length, $f/12$; snapshot; film; pyro developer; Royal bromide enlargement, redeveloped. The clouds were printed in separately from a glass negative.

"The Vanderbilt Cup," by T. W. Kilmer. Data: October, 10 A.M.; sunlight; R. R. lens, $6\frac{1}{2}$ -inch focus, stop U. S. 2; $\frac{1}{150}$ second exposure; Eastman film; tank development; enlargement on Velox.

"Study of Head and Hair," by Louis Fleckenstein. Data: August, 11 A.M.; studio light; Smith lens, 16-inch focus, stop No. 2; 5 seconds exposure; Standard plate; pyro developer; enlargement on Royal bromide.

"The Swans," by Maurice Tracey Fleisher. Data: September, 4 P.M.; strong light; Goerz Series III lens, $8\frac{1}{4}$ -inch focus, used wide open; $\frac{1}{5}$ second exposure; Seed 27 plate; pyro developer; gum bichromate print.

"Landscape," by Fedora E. D. Brown. Data: October, 5 P.M.; sunshine; R. R. lens, 9-inch focus, $f/8$; $\frac{1}{5}$ second exposure; Hammer plate; edinol developer; gum print from 10 x 12 enlargement.

"Woodland Brook," by W. H. Zerbe. Data: September, 8 A.M.; good light; single combination of Goerz lens, 24-inch focus, $f/13$; exposure from one to two seconds; Orthonon plate; pyro-acetone developer; carbon print.

"Fishermen Three," by George H. Scheer, M.D. Data: September, 9.30 A.M.; bright but hazy light; R. R. lens, $5\frac{1}{2}$ -inch focus, used wide open; $\frac{1}{10}$ second



MARY LOUISE BRYANT
STRAYED FROM ELFLAND
HONORABLE MENTION — GENRE CLASS



exposure; Cramer Instantaneous Iso plate; pyro tank development; redeveloped enlargement on Royal bromide.

"Patient Slaves," by R. S. Kauffman. Data: August, 4 P.M.; sunlight; Zeiss lens, $6\frac{1}{4}$ -inch focus, $f/5.6$; $\frac{1}{75}$ second exposure; Film pack; M. Q. developer; Nepera print.

"Waifs," by Horace Parks Lane. Data: Noon; achromatic lens; $\frac{1}{25}$ second exposure; Eastman film; M. Q. developer; Royal sepia bromide print.

"The Turf," by E. O. Hoppé. Data: September, 2 P.M.; good light; Dallmeyer lens, $f/8$; 4 seconds exposure; Marion plate; pyro developer; albumen print.

"Harbor Scene — Evening," by S. S. Skolfield. Data: May, 6 P.M.; poor light; Zeiss lens, 7-inch focus, $f/7$; $\frac{1}{5}$ second exposure; Orthonon plate; carbon print.

"The Glint," by Dr. Albert R. Benedict. Data: March, 3.45 P.M.; misty; Cooke lens, $8\frac{1}{2}$ -inch focus, $f/4$; $\frac{1}{50}$ second exposure; Kodak film; pyro tank development; bromide enlargement.

"The Kite-Flyer," by Gustave F. Swenson. Data: August, 5 P.M.; good light; Goerz rd lens, $5\frac{1}{8}$ -inch focus, stop U. S. 2.9; $\frac{1}{25}$ second exposure; Orthonon plate; ortol developer; kallitype print from enlarged paper negative.

"Strayed from Elfland," by Mary Louise Bryant. Data: June at noon; dim side-light; R. R. lens, 8-inch focus, stop U. S. 3; 7 seconds exposure; Stanley plate; pyro developer; American platinum print.

"Bossie," by Alfred Merz. Data: June, 11 A.M.; good light; B. and L. lens, $8\frac{1}{2}$ -inch focus, $f/11$; $\frac{1}{5}$ second exposure; Stanley plate; pyro developer; bromide enlargement.



ALFRED MERZ

HONORABLE MENTION — ANIMALS

BOSSIE

EDITORIAL

The National Association

EARLY in the current month the officers of the Photographers' Association of America will meet and shape the policy for the year 1909. In their annual deliberations these gentlemen do not lack for advice, which has been offered freely and abundantly — but not always judiciously, nor with entire grace. While this is not the time to discuss the qualities that the chief executive should bring to his office, we are convinced that the present incumbent is well equipped for his task. He is a distinct improvement on many of his predecessors. He will lead, but cannot be led. His ideals and purposes correspond to his high character as a man and his experience as a successful practitioner. His record of efficient and faithful service as national treasurer for nearly ten years is, in itself, a guaranty of the admirable work that he will render as president. Hence, all doubts and fears that some minds may harbor regarding the welfare of the national body may be dismissed, although honest and intelligent criticism of its policy and the acts and methods of its officials is a wholesome sign of the times. To express the same is the privilege of every member in good standing.

Much has been said and printed upon the time-worn subject — prizes. It is noticeable that practitioners in this country no longer take pride in the medals and other honors which they have won at conventions. Has it ever occurred to the governing bodies that the public, which is denied the privilege of visiting the pictorial or industrial displays at conventions, is ignorant of the character of these honors bestowed upon the successful competitors?

Profiting by the mistakes made in past years when dealing with the question of prizes, a large, American, photographic and industrial firm, and a certain monthly photographic publication, publicly announced the names of the members of their juries months in advance of the conclusion of their yearly prize competitions. As these were men notable for ability and character, they inspired confidence among the professional and amateur ranks, and, consequently, the contests in question were exceptionally successful. Contrast this result with the manner of conducting such matters at our national or state conventions. It is not a pleasant subject to contemplate nor a profitable one for discussion.

Foreign contributors to the pictorial department at our conventions generally have been treated with marked discourtesy and neglect — a sad commentary on the manners of our native workers. There is yet time to rectify the unpleasant impression created in the minds of our European fellow-photographers.

The Association Annual is a creditable achievement. Why can it not be preceded by a convention program or catalog of equal excellence and scope? The official catalog of the conventions (*Wanderversammlung*) of the German Photographers' Society is an old and regular institution, and is a feature worthy

of emulation. The vigilant and enterprising committee of our National Association should not be content to copy the methods of its predecessors, but should try, rather, to improve on them. This can be done in various ways; also, by considering the doings of conventions in the old world, where the people are said to be just as clever and progressive as they are here.

The aforesaid committee is, undoubtedly, aware of the errors and shortcomings of conventions in the past, and may be trusted not to repeat them. Inordinate haste, with a consequent absence of thoroughness in the final arrangements, as well as in the official proceedings, has ever been a noticeable fault in our national conventions. The officers, at the preliminary meeting, this month, will duly consider this and all other questions upon which depend the success of the Rochester convention; and may it be announced, emphatically, as never before, that this particular event will be the greatest annual conclave ever held in the history of the Photographers' Association of America.

The Dresden Exhibition

THERE is every prospect that the great International Photographic Exhibition, at Dresden, next May, will be a brilliant and memorable success. In extent and completeness it will easily eclipse anything of the kind ever undertaken. The great structure reared for the purpose has already proved inadequate, and extensive annexes, affording additional floor- and wall-space, are being constructed. Photographers — amateurs and professionals — as well as manufacturers, scientists and publishers, will flock from every part of the civilized world to witness the wonderful evidences of photographic achievement in every branch of the art-science since the days of Talbot and Daguerre. American photography will be fittingly represented from industrial, scientific, as well as pictorial view-points; and hundreds, perhaps thousands, of interested Americans will journey to the German Florence this summer. We have been interested in this great project since its inception, and, realizing the importance to photographers of this remarkable demonstration of photographic development, the editor cannot but urge them to make every effort to attend this, the most extensive and instructive enterprise in the history of photography. Having enjoyed the advantages of European travel, including an intimate acquaintance with the beautiful city of Dresden, where he lived and studied for periods totaling nine years, he is ready to aid with advice and suggestions those of our less fortunate readers who purpose visiting the exhibition. With this end in view, PHOTO-ERA recently began to call the attention of its readers to the best books relating to European travel and picture-galleries. The November issue contained our expression of opinion concerning the best method of learning modern languages. In the December number was described the remarkable and handy series of facsimiles, in color, of famous masterpieces in European art-museums. The current issue contains an editorial endorsement of the most direct steamship line to Germany. Thus, it is our purpose to give intending visitors to Dresden the best of counsel, so that they may start thoroughly prepared and equipped.

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus

THE winter is cold; the winter is gray. Clouds blow swiftly across the sky, while against their swiftly-scurrying forms the gaunt trees stand outlined, tossing their bare branches unceasingly. The land, under its cover of ice and snow, lies dumb. The voices of its brooks and rivers have sunk to indistinct murmurs or are hushed into silence. Paths, which once led to pleasant places, are lost and gone. Familiar objects are hidden or have taken on new forms under the modeling of the falling snow.

But though the green and happy world is buried beneath the ghostly snow, and it seems a thing impossible that it can ever emerge from its icy thrall, yet we know that in due season orchards will bloom again and birds make merry in every tree and bush. Still, winter has its pleasures, and we do well to enjoy them instead of enduring its discomforts; for we know that

"Springtime cannot always stay,

And song-birds do not always sing.

The summer passes swift away,

And autumn tree-leaves weakly cling.

So when we sit here listening

To every fitful wind that blows,

And see the white land glistening,

Let's like the winter and its snows.

"Prince, you and I are glad to ring

Our changes on the youth that goes,

And laugh while we are shivering;

'We like the winter and its snows!'"

JUST SNOW.

THOUGH three winter months still stretch before those of us whose homes are in northern climates, yet these so-called dreary periods of the year are not without their compensations in the way of picture-making out-of-doors. Indeed, winter affords us many fine subjects, and, by choosing the proper time of day and the favorable atmospheric conditions, one can obtain most unusual and artistic pictures.

The ideal time of day is the early morning or late afternoon, for then the shadows are long and soft, and the unevenness of the snow's surface is apparent, for every little depression casts a shadow. If pictures are taken in the middle of the day, when the sun is shining, the surface of the snow is evenly illuminated and the resulting picture has the effect of chalk and charcoal, or, as one amateur puts it, of "soot and whitewash."

A hint of frost or mist in the air is a very material aid in producing a snow-picture which will give the impression of snow. It also helps to tone down the outlines which are hard and ugly, and partly conceals but still reveals the objects depicted.

When one comes carefully to study the surface of the snow he will notice that its texture varies with weather-conditions. A dry, crisp snow should show in the photograph that it is dry and crisp, and therefore a bright day should be chosen in which to photograph it; but a wet, slushy day requires that the sky should be dull and the clouds rather heavy to be in accordance with the landscape. After a heavy wind has swept over it, the snow is well worth photographing. The lines are long and point in one direction and give breadth to the picture.

One should give special attention to the lines in a snow-scene. Lines are practically under one's control when photographing an expanse of untrodden snow, for then one may make his own lines, placing them where they will help the composition. First compose the picture on the ground-glass, noting carefully where lines and curves are needed to complete the composition, and then proceed to make such lines and curves by tramping down the snow in the directions decided upon. "Scuffing" the snow along the lines will produce better pictorial results than treading it evenly.

Trees in winter are especially good subjects. Their leafless branches outlined against the sky make fine studies in lines and curves. In photographing them it should be borne in mind that an effective picture is as simple as possible. A single tree is a more satisfactory subject than three or four trees together, although a line of trees some distance apart makes a good study. The tree has so much individuality that it requires space in which to portray it, and this can be conveyed even in a small picture if one suppresses unnecessary objects. Perhaps there is no tree that so well maintains its individuality when stripped of its leaves as does the white birch. This species seems to choose some pleasing locality, or groups itself in some pleasing way, as if its mission was to pose for its picture.

Trees should seldom if ever be photographed against a cloudless sky, unless one is aiming to get the effect of an etching. The clouds should not be too heavy or they will divide the interest.

A suggestion of form will be found to give character to the picture, while clouds of distinct shape and heavy shadows will spoil the beauty of the picture. One must strive to depict the contour of the tree and not simply show a network of twigs and branches. To do this the light should come a little from behind the tree, so that the shadows may give roundness to the trunk and branches.

Then the woods in winter hold pictorial attractions which summer completely conceals. The poet knows it, and asserts that,

"The winter woods, the winter woods,
Are better far than house and goods;
Than food and raiment better far;
Than gilded walls and canopies.
They break but do not stop the breeze,
And never hide a star.
The winter woods, the winter woods,
All graces lurk within their buds."

Although we may not endorse quite all the poet says, still the amateur will find in the winter woods special and engaging subjects, and he is wise who seeks them out. The wind-swept aisles of the leafless woods offer delightful studies, and one obtains glimpses of wood interiors which are not vouchsafed to him when summer spreads abroad her leafy covering.

The brook in winter-time — unless it be ice-bound — is just as attractive as the brook in spring or summer time. The crooked channel which the water has cut through the snow, with its fringes of withered weeds and rushes, makes a very good subject for the amateur in search of a winter scene.

Exposure must be governed by weather-conditions and by the style of picture one is aiming to obtain. A country scene would be better portrayed if one used a large stop, while in the case of a "short view" of a brook, or a picture of a single tree, the stop should be smaller. Development should not be carried too far, as, if the negative gains too much density, the delicacy of detail — which is one of the charms of a snow-scene — will be lost.

A very satisfactory developer will be found in the pyro-soda developer, a good formula of which is made as follows:

Solution No. 1

Pyro	1	ounce
Potassium metabisulphite	60	grains
Water	20	ounces

Solution No. 2

Potassium bromide	15	grains
Sodium sulphite	2	ounces
Sodium carbonate	2	"
Water	20	"

Use equal parts of each or, if over-exposed or there are strong contrasts in the scene, dilute one-half.

The most satisfactory printing-process in winter is the gaslight paper, and its use is to be commended for the reason that the worker is independent of the sunlight. The bromide papers are of so many grades and so admirably

adapted to all kinds of negatives that one has only to choose the special paper for his negative. There is no greater boon for the amateur with limited time for photographic work than these same gaslight papers, for recent developments in their manufacture are putting them on the same plane as daylight-printing papers.

ROYAL VELOX

To those members who wish to try an especially artistic paper for gaslight printing, the Royal Velox will be found to meet this special requirement. It is somewhat heavier than the other grades and is of a creamy tint, just enough off from white to give a mellow tone to the print and to soften the high-lights. It is especially good for portrait work and for landscape pictures with broad masses of light and shadow. Like the other grades of Velox, it comes in both "Regular" and "Special" emulsions and should be chosen to suit the special negative from which prints are to be made. In manipulation it is the same as the other gaslight papers, and if one wishes a sepia print he can bleach and re-develop the black and white one very easily.

REPLACING A BROKEN NEGATIVE

It sometimes happens that one is so unfortunate as to break a favorite negative, one that cannot be replaced. Now "for every evil under the sun there is a remedy or there is none," as Benjamin Franklin tells us; so for this evil we search for the remedy, which is quickly and easily found if one has a good print from the broken negative before it was broken.

Take the print and make it translucent by waxing it with paraffin wax, then blotting off all superfluous wax with a piece of clean blotting-paper.

Take a clean glass plate, lay the print on it, the back of the print against the glass, and place over it a sensitive plate of rather slow emulsion and adjust in a printing-frame. Expose to the light of a No. 2 kerosene lamp or a gas-jet, as for making lantern-slides or gaslight prints. The time of exposure will of course depend on the density of the print. Develop as usual and the result will be a good negative.

If one has only mounted prints, soak the print and mount in lukewarm water till soft, peel off the print and lay it face down on a sheet of glass and clean all paste from the back of the print, using a soft rubber eraser.

Old albumen prints make very good negatives, as they have much depth and give good gradations of light and shade.

Where one has very valuable negatives it is a good idea to make duplicate negatives from them on thin, glossy paper. Such negatives give very fine prints and are specially valuable if one is unlucky enough to have an accident happen to the original.

FOREGROUNDS

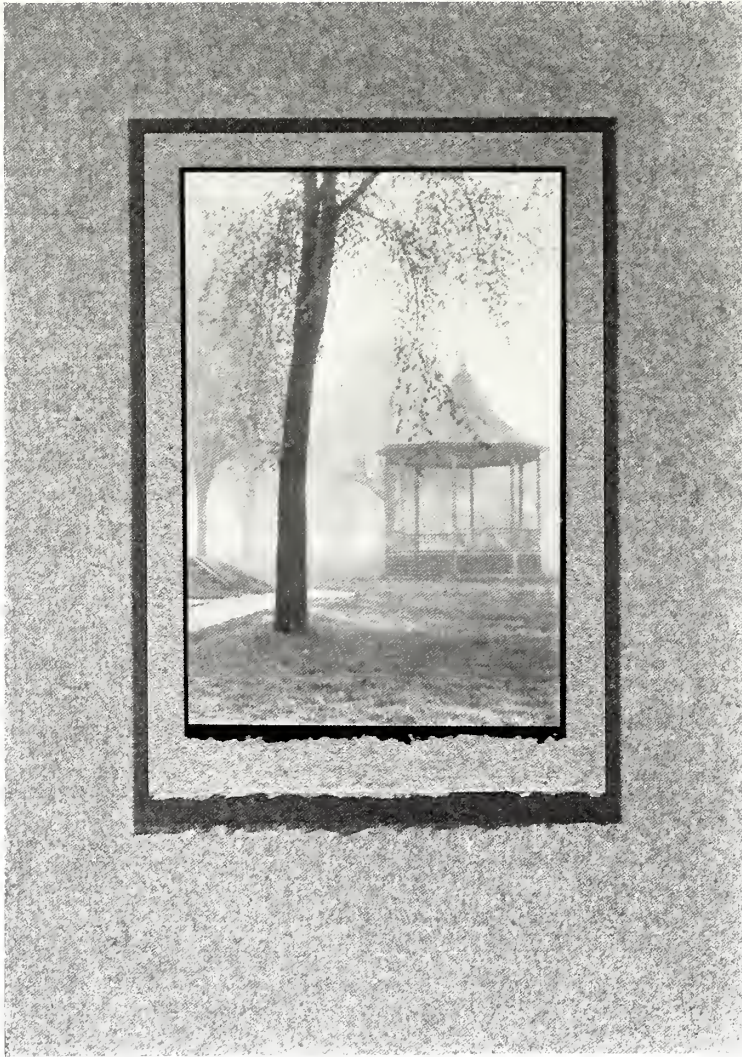
THE subject of the December competition, which closes January 31, is "Foregrounds." As



P. H. MITCHELL
PORTRAIT OF H. H. M.
FIRST PRIZE—ARTISTIC MOUNTING



SECOND
PRIZE
ARTISTIC
MOUNTING



J. H. FIELD

SPRINGTIME — THE PARK

several queries have come to the editor asking just what is meant by the term, a few words on the subject may not come amiss to the Guild in general.

The simple definition of "foreground" is: "That part of a landscape situated nearest the spectator, or that part of a picture represented as being nearest to the spectator."

The whole merit of the picture depends largely on what object in the picture is represented as being nearest the spectator. If it is a wide stretch of ground with nothing to break the out-

line, then the picture will appear flat and lifeless. If, on the contrary, some object is brought into prominence, as a small clump of shrubbery, a large rock, a pile of stones, a tree, etc., the effect is to give all the other objects in their true proportion and perspective, and to convey the effect of distance.

The right treatment of the foreground governs the effect of the picture. If one wishes to give the appearance of reality to his picture he must look well to the placing of proper objects in the foreground to obtain that effect.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

RULES

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

SUBJECTS FOR COMPETITION

December — "Foreground Studies." Closes January 31.

January — "Photographs of News Events." Closes February 28.

February — "Winter Landscapes." Closes March 31.

March — "Historic Pictures." Closes April 30.

April — "The Brook in Springtime." Closes May 31.

May — "Farming-Scenes." Closes June 30.

June — "My Favorite Poem." Closes July 31.

AWARDS — ARTISTIC MOUNTING

First Prize: P. H. Mitchell.

Second Prize: J. H. Field.

Third Prize: Paul Fournier.

Honorable Mention: Fedora E. D. Brown, W. A. Van Wagner and L. E. Brundage.

"Portrait of H. H. M.," by P. H. Mitchell. Data: Interior lighting; Goerz lens, Series III, f/16; 3 seconds exposure; Royal plate; Royal Velox print toned with Tabloid sepia. The mount, which is of special interest this month, is of unusual originality, harmony and beauty. The paper is of Italian make, light gray-brown in color, and of a coarse crash texture. A circular plate-sunk center has been made in the upper sheet of paper, with a cardboard die, and there the print is mounted. Under this sheet of paper is another, a trifle larger, of ordinary gilt paper, which forms the dark outline of the surrounding rectangle. The whole is then mounted on a larger sheet, as shown in the reproduction. A neat folder, closing from all four sides and made of the same mounting-paper, is provided for the protection of the print. To relieve the plainness of the front cover a rectangular outline was embossed on the paper about an inch from the edge.

"Springtime — The Park," by J. H. Field. Data: May, 6 A.M.; misty; lens wide open; Cramer Medium Iso plate; pyro developer; W. & C. Platinotype print. Here is seen the use of several underlays, all harmonizing with the tones of the print, and it should be noticed that deckle-edge stock has its advantages in this form of treatment.

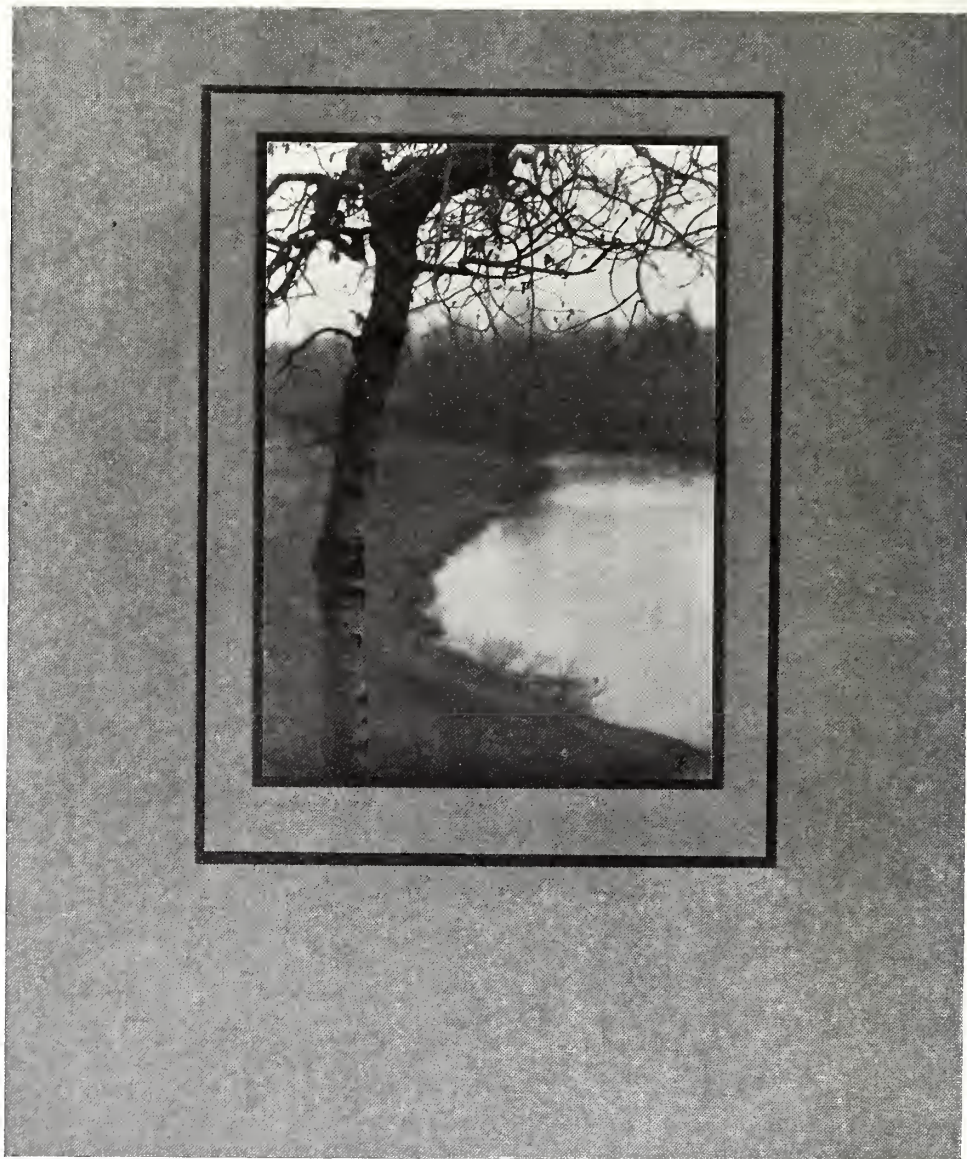
"Decorative Landscape," by Paul Fournier. Data: April, 4 P.M.; cloudy; Plantograph lens, 6-inch focus, used wide open; $\frac{1}{8}$ second exposure; Seed 27 plate; metol developer; sepia platinum print. No one can mistake a print by Mr. Fournier — it has individuality; and the mounting of his prints is, to a certain extent, responsible for this, because the style is invariably the same, and, being simple, it is always in good taste. Two tones of mounting-paper, harmonizing with the print, are used, and alternated so as to produce two rectangles in outline, as shown in the reproduction. These lines may be of the lighter or darker paper, as seems best.

ENLARGING-APPARATUS

H. E. BALFOUR, St. Casimir, P. Q., Canada, sends us a photograph of his enlarging-apparatus, which makes use of any folding camera for the lens and bellows. Mr. Balfour offers to send a blue-print drawing showing its construction to any Guild member who wishes to make enlarging-apparatus for himself. As a matter of courtesy, we would suggest that those who make the request send Mr. Balfour one of their favorite prints in exchange.

❧

A subscription brings happiness and PHOTO-ERA. A prescription brings — never mind.



PAUL FOURNIER
DECORATIVE LANDSCAPE
THIRD PRIZE — ARTISTIC MOUNTING



Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"WINTER TWILIGHT," W. S.—This is a very interesting view of a tiny hamlet with a church, the principal object, in just the right position to make the surroundings seem an appropriate setting. Snow lies on the ground, on the roofs of the church and houses, and on the branches of the trees—snow so well portrayed as to give one the feeling that it is really snow. The sky is a soft gray, and there is, low on the distant horizon, a faint streak of light, seeming to indicate where the day has gone. This picture would be admirable were it not for one very glaring defect. Across the foreground from side to side stretches a board fence, and the first thing which thrusts itself forward in the picture is this same fence, with its distracting line. The picture cannot be trimmed to cut off this line, as then it makes the scene very much foreshortened; but there is no reason why the fence could not have been left out entirely by a judicious choosing of the point of view. The remedy for this print would be to work on the negative and eliminate the fence entirely.

"WINTER WOODS," P. L.—This is a very unusual picture of woods in winter. There has been a storm, and the trunks of the trees are whitened with the snow, which has driven against them and clung to the bark. The foreground shows an open space with half a dozen scattered trees so well placed that they look as if arranged especially for this occasion. The background shows the dense woods, but, instead of being a dark mass, the plate has been so cleverly developed that they are rendered in a delicate gray. The point of view chosen was on a sloping ground, which adds greatly to the composition of this particular subject.

"THE SENTINEL," G. C.—This print, which was sent with several others for criticism, all admirable studies of the seashore in winter, was not given a title by the artist. "The Sentinel" seems an appropriate name, for it is the picture of a lighthouse against which the waves are dashing. The water and cloud-effect in this picture are both excellent. The long lines of the clouds are in perfect harmony with the long sweep of the waves as they roll in, the picture being taken just when the crests of the waves were curled over and about to break. There is real motion in this picture, not suspended animation.

"IN THE CANYON," W. J. O.—The technique of this picture is excellent; the exposure, development and printing are all well done. The subject, however, is one of extreme difficulty to render satisfactorily. The artist says it was taken in Ruxton Canyon, near Minnehaha, on the Pike's Peak R. R., Manitou, Colorado. It shows a tiny waterfall trickling down huge boulders, and there is not even a glimpse of the sky to give perspective to the picture, though one distinguishes a cut or break in the rocks in the background. Under the circumstances one understands that to get "sky" into the field of the lens would be next to impossible, but it needs the sky to make such a scene of any artistic or illustrative value. It is, however, a faithful reproduction of what nature can do in the way of rough and rugged paths. This picture would be much improved if it were trimmed about an inch and one-half at the left, cutting off the huge rocks at the side, which are out of focus, and thereby concentrating the interest directly on the little waterfall.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

CHAS. A. BECK.—Needle-hole or pin-hole pictures are eligible in all competitions. No discrimination is made between pictures taken with a pin-hole and those taken with a lens. In the Round Robin Guild hand-book the competitions began with July, 1907, and extend to June, 1909. There being no year date in the book, the new member is sometimes puzzled as to the exact subject for the month, but one will always find the subjects listed in PHOTO-ERA for each month. 4 x 5 pictures are acceptable for the Guild competitions.

JAMES MARRIOTT, SR.—Your Nevada prints are very interesting, and we shall hope to see more of them. You have an excellent opportunity for making pictures of unusual subjects.

P. H.—You will find that the Royal Velox, made on tinted paper, will give you beautiful prints and, if bleached and redeveloped, you may obtain fine sepia tones. In these dull days, when daylight printing is very difficult, one finds in these new gaslight papers an easy solution of his difficulties.

JULIA D.—To find the approximate focal length of your lens, focus on some distant object like a telegraph-pole or a church spire, measure the distance from your lens to the focusing-glass and the length will be the focal length of your lens (nearly). If your lens is a rapid rectilinear, measure from the stop; and if it is a single lens,

measure from the back surface of it. This will give you the focal length near enough to be of practical use in enlarging, etc.

B. M. P.—Rodinal is a concentrated developing-solution introduced about seventeen years ago. It is similar to hydroquinone and eikonogen. Rodinal needs nothing but the addition of water for use. For plates, use from twenty-five to fifty ounces of water to one ounce of Rodinal; and for paper, use twice the quantity as for plates.

GEORGE S. CHAPMAN.—For stubborn stains try a solution of sulphocyanide of ammonium, twenty-five grains, to five ounces of water. Do not attempt to sensitize your own plates. It is not only a very delicate process requiring nicety of weight, etc., but you would find it difficult to coat the plates evenly, except after many trials. The plates ready sensitized are not very expensive, and the time and labor saved count for a great deal. It is another matter when it comes to the coating of printing-papers, the emulsions having great latitude, and they are not so sensitive to the light. See article in present number on "Foregrounds."

W. K. HILBRICH.—Instead of buying the M. Q. developer, ready prepared in tubes, you would find it much less expensive to buy the chemicals and have them made up in packets which, when dissolved, would make either five or ten ounces of

developer. Take any of the formulæ given in the pages of PHOTO-ERA for this kind of developer and divide the grains by the number of ounces you wish the solution to contain. For instance, if your formula calls for forty grains of metol, fifty grains of hydroquinone, and twenty ounces of water, then eight grains of metol and ten grains of hydroquinone would be the proportion for five ounces of water. The other chemicals are calculated in the same manner. The hydroquinone and metol may be mixed together, but it is better to keep the other chemicals in separate papers. Wrap in waxed paper and keep in a glass can with a screw-top. This prevents the air affecting them and causing oxidization.

H. W. SMITH.—A formula for pryometol which you will find very satisfactory is made as follows: forty grains of pyro, thirty-five grains of metol, ninety grains of potassium metabisulphite, fifteen grains of bromide of potassium, twenty ounces of water. Dissolve in separate solution three ounces of carbonate of soda in twenty ounces of water, and when developing use equal proportions of each. This developer does not keep well, so it is wiser to make it up in quantities as needed.

GEORGE S. CHAPMAN, 677 Massachusetts Avenue, Arlington, Mass., wishes to communicate with members of the Guild in his vicinity for the purpose of forming a small club.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
		Seed 23
Class 1	Eastman Extra Rapid	Class 4
AnSCO Film, N. C. and Vidil	Hammer Extra Fast	
Cramer Crown	Hammer Extra Fast Ortho	Stanley Commercial
Cramer Crown Non-Halation	Hammer Non-Halation	Class 5
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	
Cramer Inst. Iso Non-Halation	Seed 26x	Cramer Commercial
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Plain
Cramer Trichromatic	Seed L. Ortho	Defender Non-Halation Ortho
Defender King	Seed Non-Halation	Defender Ortho Slow
Defender Ortho Inst.	Seed Non-Halation Ortho	Hammer Slow
Eastman N. C. Film	Standard Extra	Hammer Slow Ortho
Ensign Film	Standard Orthonon	Class 8
Hammer Special Extra Fast	Class 1 1/2	
Imperial Special Sensitive		Cramer Slow Iso
Imperial Orthochrome Special	Lumière Ortho A	Cramer Slow Iso Non-Halation
Sensitive	Lumière Ortho B	Class 12
Kodoid	Lumière Panchro C	
Magnet	Class 2	Defender Queen
Premo Film Pack		Seed Process
Seed Gilt Edge 27	Cramer Medium Iso	Class 100
Standard Imperial Portrait	Cramer Medium Iso Non-Halation	
Standard Polychrome		Lumière Autochrome
Stanley Regular		Lumière Red Label Slow

The Round Robin Guild Exposure-Guide For January

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of January, on any fine day at noon, when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used. Treble it when the light is rather dull and between 9 and 10 A.M. and 2 and 3 P.M. Increase it four times when there are heavy clouds and very dull light, or if f/16, U. S. No. 16, is used. For f/5.6, U. S. No. 2, give half. At 11 A.M. and 1 P.M. increase the exposure one-fourth. From 10 to 11 A.M. and 1 to 2 P.M. increase it one-half.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds; open snow-scenes without foreground	1/512	1/256	1/200	1/160	1/128	1/100	1/64	1/50	1/40	1/32	1/20	2/5
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds; winter scenes having very light snow-covered foregrounds	1/256	1/128	1/100	1/80	1/64	1/50	1/32	1/25	1/20	1/16	1/10	4/5
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; average snow-scenes	1/128	1/64	1/50	1/40	1/32	1/25	1/16	1/12	1/10	1/8	1/5	1 3/5
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes; snow-scenes with excessive contrast	1/64	1/32	1/25	1/20	1/16	1/12	1/8	1/6	1/5	1/4	2/5	3 1/5
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving objects at least thirty feet away	1/32	1/16	1/12	1/10	1/8	1/6	1/4	1/3	2/5	1/2	4/5	6 2/5
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/16	1/8	1/6	1/5	1/4	1/3	1/2	2/3	4/5	1	1 3/5	13
Portraits outdoors in the shade; very dark near objects	1/8	1/4	1/3	2/5	1/2	2/3	1	1 1/3	1 3/5	2	3 1/5	26
Badly lighted river-banks, ravines, glades and under the trees	1/4	1/2	2/3	4/5	1	1 1/3	2	2 2/3	3 1/5	4	6 2/5	51
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	3/4	1 1/2	2	2 2/5	3	4	6	8	10	12	19	154

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

DIFFUSER vs. REFLECTOR

PHOTOGRAPHY, like drawing, may be defined as "the expression of form on a flat surface," and in both cases it is dependent upon the gradation of shadows — the gradual merging of light into shade. The extremes of photographic rendition are dead black and pure white with an infinite number of intermediate grays.

"The problem, therefore, which faces the maker of portraits by photography is a twofold one," says E. C. Richardson in *The Amateur Photographer and Photographic News*. "Firstly, he must see that the shadows on the face of his sitter are properly graded; and, secondly, he must see that the degree of contrast which he has to portray is not outside the limits of his medium. It is just here that the ordinary photographer fails, as a cursory examination of the photographs displayed in the first shop-window will convince anybody. Flat foreheads and cheek-bones are the rule everywhere, due either to faulty gradation or to excess of contrast, or to both. How, then, is the twofold problem to be solved? The old-fashioned device was the reflector; and, when properly placed, the reflector is certainly of assistance, for reflected light is thrown most strongly onto the shadow side of the face just where the shadow and the high-light meet, and the gradation is consequently improved."

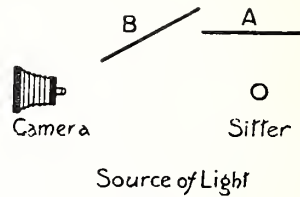
Even though correctly placed at B there is likely to be an unpleasant staring effect in the eyes, due to the cross-light from the reflector showing at the edge of the pupils. When the reflector is moved away from the sitter one side of the face is in light and the other in shade with no gradation, while a flat, staring effect is the result when the reflector is moved too near. If incorrectly placed at A the reflector will throw a false light on the extreme edge of the shadow where it is not wanted.

To obviate these difficulties, Mr. Richardson discourages the use of a reflector, but advises instead that a diffusing-screen, consisting of a hoop covered with thin tracing-cloth or muslin, be interposed about half-way between the sitter and the source of light.

"Note, however," writes Mr. Richardson, "that the diffuser should intercept only that light which falls upon the sitter. All other light should be allowed to enter the room freely to be reflected from the walls and ceiling, and throw a gentle general illumination on the shadow side of the face, and so further lessen any extreme

contrast. It is quite useless to cover up the *entire* window with tissue-paper or ground-glass, and the only effect of so doing is to increase exposure without any corresponding advantage. The diffuser performs two functions. Firstly, it lengthens and greatly improves the scale of gradation and, secondly, it reduces the degree of contrast to within workable limits."

Mr. Richardson gives the exposure with a diffuser on a fairly bright day as two seconds at $f/4$, the source of light being the ordinary window of a room containing medium furniture and walls.



TOO MUCH FURNITURE IN INTERIORS

MORE interiors are made at this season of the year than at any other time, and the many prints I have seen recently suggest the desirability of simplicity in home furnishing. Year by year this fact is becoming more universally recognized, but at the present time the average room is overcrowded with things which may be beautiful in themselves, but which are disturbing when taken collectively in a picture. Excessive detail in this respect is to be avoided, and it is always a good plan to go about a room before photographing it and see how much can be removed with advantage. A little arrangement is almost always necessary, but the picture should not convey the impression of arrangement or formality. This may be avoided in a large measure by adding the human touch, so easily suggested by some small object, such as a fan, a newspaper or a bit of needlework, dropped carelessly in some natural place, as if for a short time only. This little touch gives the effect of occupancy, which is an important consideration. Objects at the edge of the plate should be carefully scrutinized to make sure that they are not badly foreshortened, and reflections from picture-glasses should also be avoided. A little wad of paper behind the frame will usually change the angle sufficiently to remedy the defect.

WHAT IS A GOOD LANTERN-SLIDE?

ONE of the truest aphorisms I have read in a long time is that of James Shaw, uttered before the Amateur Photographic Society of Manchester, England. Said Mr. Shaw, "No good slide-maker buys cover-glasses; these are made for and sold to beginners." It has been my misfortune of late to see several stereopticon shows, public and otherwise, with the result that the impression is strong in my mind that slide-makers are too easily satisfied with their work, or else they do not know what a really good slide is or how to make it. In any event, it is a fact that a large proportion of the lantern-slides being shown publicly at the present time are not worthy of the name. No worker gets a good slide every time, but the great trouble is that the failures are not thrown out as they should be. Fifty per cent of failures can be afforded for the sake of high-class results, since every slide needs a cover-glass and the unsatisfactory slides may be used for that purpose.

Now how shall the quality of a slide be judged? Every portion must have texture, and the scale of gradation must be long and gradual. If density is to be judged in the hand it must be possible to read print through the densest parts, while the high-lights, when laid on white paper, must be veiled slightly. If the image is projected on the screen, a pointer held between the lantern and the screen should cast a shadow distinctly darker than the densest portion of the slide. Light must pass through every portion in order to ensure luminosity of the shadows.

Mr. Shaw is an expert in the art of making lantern-slides and his advice is well worth following. For a developer he uses Thomas's hydroquinone formula, found in any English annual, but never full strength. For warm tones he gives three or four times normal exposure and applies a developing-solution diluted to one-fourth strength—or even weaker. For pure black and exceedingly transparent shadows he often gives correct exposure and uses a ferrous oxalate developer, but when he has an unusually hard negative to deal with, rodonal is made use of.

A wide range of tones may be secured with the three developers mentioned, but blue tones are sometimes desired for marines. These may be obtained by the use of a rich gold toning-bath, which gives pure color, but does not clog the shadows. Uranium is also useful for toning and, likewise, mercury.

Mr. Shaw uses mercury in three distinct ways: (1) to change the color of the slide, (2) to intensify a weak slide, and (3) to treat an intentionally under-developed slide for the purpose of getting a quality which he cannot get in any other way. Slides treated with mercury he redevelops with the hydroquinone solution. Farmer's reducer he makes great use of to secure brilliancy; and to those who desire to get a good slide from a hopelessly thin negative he recommends the following: after exposure develop the slide until it is so dense that no light, however

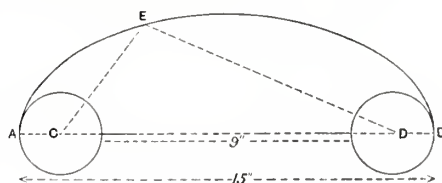
strong, could project an image of it upon a screen, then reduce the slide in the above reducer until satisfactory.

THE MERRY WIDOW HAT

WHY use a background for bust portraits of women while the "Merry Widow" hat is in vogue? The small, inexpensive hats are as rare this season as were the English exhibitors at the last London Photographic Salon; which means that but few photographers will have enough money left to buy a background—hats are necessities, while studio-fixtures are of but secondary importance. But why not use the hat itself? It answers admirably. Many are now so large that they isolate the head so completely as to draw the attention to the contour of the face beneath in a way which no ordinary background would do. Obtrusive details on the ordinary wall, which is often used as a background, are easily and almost entirely obliterated by the "Merry Widow." A look in the ground-glass, after the model has been posed, will show small spaces between the hat and shoulders and, perhaps, another above the hat in front. These may be given a neutral tone by pinning pieces of wrapping-paper to the wall back of the sitter, when the preparatory arrangements are quite complete. The "Merry Widow" may justly be considered a "valuable" studio accessory.

AN ELLIPTICAL REFLECTOR FOR ENLARGING

IN a recent issue of *Photography and Focus* Percy H. King describes how to strike an ellipse by which to bend a metal reflector for enlarging-purposes. A simple yet efficient reflector may be made at home in this way by any ingenious person. The dimensions given below are for a half-plate camera ($4\frac{1}{4} \times 6\frac{1}{2}$).



"The base line A B was taken, fifteen inches long, and two circles, each three inches in diameter, were struck, one and one half inches from each end. Two pins were stuck, one at A and one at B, and a piece of thin string tied to them so as to be lightly stretched from one to the other. The pin at A was then shifted to C, and that at B to D, and a piece of thin string tied to them in the ordinary way, keeping the string tight all the time. The position of the string at one point is shown by the dotted lines C D E. The reflector should be made of metal and painted dead white. The lights occupy the positions C and D. In my case I use two incandescent gas-lights, one on each side."

PHOTOGRAPHIC PATENTS

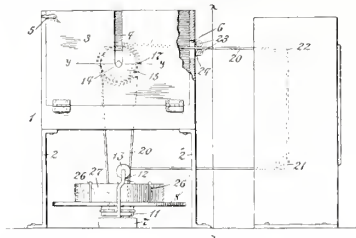
Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

October 27, 1908

12,869. MOVING-PICTURE APPARATUS. (Re-issue.) HENRY S. ISAACS, of Braddock, and LEO ISAACS, of Pittsburg, Penn. Original patent No. 845,551, dated Feb. 26, 1907.

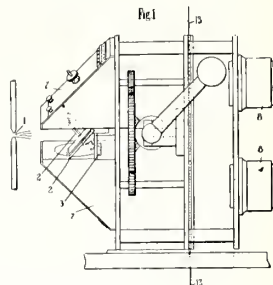
The primary object of the present invention is to avoid the great loss of time and labor incident to the usual unwinding of the coil of film before it can be used again. This has been accomplished by a mechanism whereby the coil may be unwound from its inner end as it is being projected upon the screen, instead of from its outer end, hitherto the usual custom. Then, after the entire film has been wound onto a receiving-reel, the coil may be slipped off from this reel ready at any time to be run through the machine. The coil of film 27 is seen lying on the feed disk 8, and the course of the film, starting from the center of the coil, is shown as it passes over the roller 13, through the projection-lantern, of which the guide-pulleys 21 and 22 form a part, to the receiving-reel 15. This reel is turned by a removable crank-handle on the end of its shaft 14; and the belt 20, passing around the pulleys 17 and 11, also drives the feed-



disk below at the same speed. When the whole strip has been wound onto the reel the crank is removed, the door 3 is opened and the coiled strip is slipped from the reel, where it has been held by a removable key.

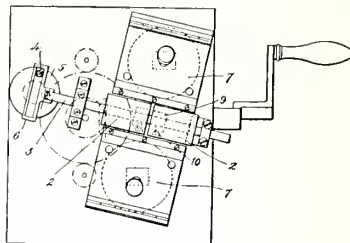
901,962. KINEMATOGRAPH MECHANISM. ROBERT THORN HAINES, London, England.

An attachment to be used with any standard moving-picture mechanism, which enables one source of light to be used in duplex or multiplex projection and which dispenses with the ordinary shutter-mechanism and avoids projection of the spaces between the pictures on the film, thereby obviating fluctuation of the light and flicking and blurring of the image. The diagrams show a duplex outfit, Fig. 1 being a side elevation, Fig. 2 a detail view of the mirrors and reciprocating-device and Fig. 3 a section through the condensers and prisms. At a suitable distance in front of the light is located a pair of reflecting-mirrors 2, set side by side at a suitable angle to each other and mounted on a shaft 3, which is moved back and forth laterally by means of the crank-pin 4 of the rotating disk 5 working in the guide-slot 6, thus giving the mirrors a reciprocating movement across the light-beam. Reference to Fig. 1 and the dotted



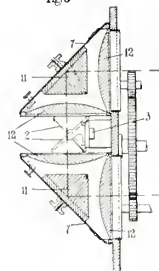
lines in Fig. 2 will show how the disk 5 is rotated by gearing from the hand-crank. At a suitable distance above and below the mirrors are placed a pair of prisms 11 and condensers 12, which receive the light reflected from the mirrors and reflect it at right angles through the projecting-lenses in the usual way. It will be readily understood that as the

Fig. 2.



mirrors are moved backward and forward, the light comes gradually and alternately on one mirror or the other, and that its beam is thrown alternately upon one prism and series of lenses or the other, so that the moving-picture on the screen is composed of a series of coincident projections. When the picture projected from one lens is fully illuminated the next picture in succession, projected from the other lens,

Fig. 3.



is fully obscured, and when only a portion of one picture is illuminated the corresponding portion of the other picture is darkened and the remainder illuminated, so that the total of the proportions illuminated and projected on the screen amount to but never exceed one complete picture. Thus the mirrors make it possible to maintain the continuous transmission of an entire image without any decrease, obscuration or variation of light whatever, even during the period when the change is being made from one picture on the film to the next of the series, inasmuch as the portion not reflected through the one lens will be reflected through the other and thus avoid the interval and absence of picture which cause the effect of flickering in the ordinary system of projection. Although two positive films may be used, it is preferable to have but one, on which are printed the odd numbers of the series consecutively and the even numbers consecutively side by side the width of two pictures, commencing No. 2 picture a sufficient distance from No. 1 to leave a loop; or intervals may be left between the odd-numbered pictures, and the even-numbered pictures may be printed in those intervals, commencing No. 2 picture a sufficient distance from No. 1 to enable a loop to be left in the film in order that each odd picture may be translated while each even picture remains stationary and is being projected, and *vice versa*. The fact that the film is two pictures wide accounts for the inclination or "staggering" of the prisms and lenses indicated in Fig. 2.

902,102. COMPOUND FOR RENDERING PHOTOGRAPHS TRANSLUCENT. ALBERT T. McILVAIN and GEORGE F. STOVER, Olathe, Kan.

The patent covers a process for rendering photographs transparent by the application of a compound prepared of balsam of fir, poppy-oil, spirits of turpentine and alkanet-root extract.

902,299. DEVICE FOR USE IN STUDYING PICTORIAL COMPOSITION. ADA BENEDICTA JOHNSON, Chicago, Ill.

It consists of a relatively wide frame to be held in the hand, and is provided with an opening over which a metallic netting is stretched flush with one side of the frame. Looking through this, the subject has the appearance of being blocked out from its surroundings, thus making it easy to determine what objects or portions of the landscape shall be made use of. On selecting the proper composition the principal lines may be drawn on the netting with chalk after which the screen may be placed upon a piece of paper or canvas and, by drawing over the previous marks, the chalk readily passes through the meshes of the netting and the essential features of the composition are in this way transferred to a substantial medium. The device is intended primarily for use by artists and their pupils.

902,430. FLASHLIGHT FOR PHOTOGRAPHIC USE. EDGAR BLACKBURN MOORE, Los Angeles, Cal.

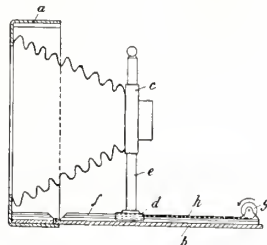
The principle of this invention is the placing of the flash-preparation over or around a relatively large area, in order to imitate a studio skylight, thus producing a soft lighting. This is made possible by an attenuated and indefinitely-extended fuse or tape of gun-cotton and magnesium powder. A non-combustible wire runs the entire length of the tape and gives it sufficient tensile strength and rigidity to allow it to be suspended around the room before and during combustion.

November 3, 1908

902,822. FOLDING PHOTOGRAPHIC CAMERA. PAUL KAEMMERER, Steglitz, Germany.

A special means for pulling the objective-carrier out of the camera-casing on opening the hinged cover of the casing is the particular feature of the patent, since the camera proper is of the usual folding type.

On the opening of the hinged cover *b*, which may be subject to the action of a spring in the usual manner, the spring-roller *g* pulls the objective-slide *d* out of the camera-case *a*



by means of the traction-cords *h*, as soon as the cover is completely opened, so that the objective-slide can pass over the rails *f* of the cover *b*. Means can be provided to stop the automatic forward movement of the objective when it has reached the position required for "infinity." To close the camera the operator pushes member *c* back into the box and, by so doing, unwinds traction-cords *h* and places the roller-spring under tension as in the operation of the ordinary window-curtain, so that the spring-roller is capable of automatically drawing out the objective-slide on re-opening the hinged cover.

902,833. PICTURE-DISPLAYING CABINET. ALLAN PINKERTON, New York City.

It is intended primarily for use in detective bureaus and police departments to hold photographs of criminals in such a way that they are protected from the wear of handling and yet are readily available for inspection; but it may also be employed to display sample photographs, post-cards and the like. The device consists of a metal cabinet with a hinged cover and a series of metal picture-holding leaves which may be turned upward, allowing inspection of those below. These leaves are designed to hold fifty pictures on each side. The pictures are held in place by fixed overlapping strips at the bottom of each row and spring-actuated hinge-clamps at the top, with a thumb-piece at the side for raising them.

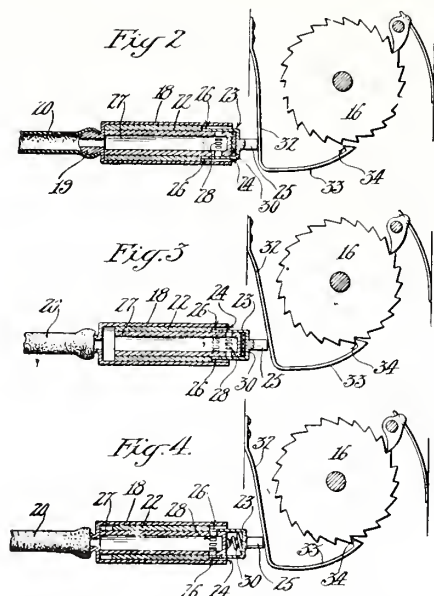
903,052. PORTABLE DEVELOPING-CABINET. RICHMOND H. BROWN, Lawrence, Mass.

The invention consists of a cabinet of wood or metal, provided with hand-holes over which arm-sleeves are attached, and windows of non-actinic glass on the top and back to admit light and allow the operator to watch his work. The cabinet is of such shape and size as to permit of receiving the necessary materials, such as plates, films, papers, plate-holders and trays of solutions, and of performing such work as loading holders and developing plates, films and papers, at the same time being small enough to be carried about.

November 10, 1908

903,405. MEANS FOR PREVENTING DOUBLE EXPOSURES. PERCY F. RICE, Los Angeles, Cal.

The device provides a simple attachment for film-cameras, fitted with pneumatic shutters whereby after an exposure has been made the shutter cannot be operated again to expose the film a second time until the film has been rolled along beyond its original position. Its operation depends upon a means for allowing or preventing the air to escape from the pneumatic shutter, which is of the usual type, except that it has two nipples at the bottom, one of which carries the usual bulb and the other is connected by a flexible tube to a cylinder placed in the camera-case near the ratchet provided to prevent the film-spool from turning backwards.



Just before operating the shutter to make an exposure the parts of this cylinder stand in the relative positions shown in Fig. 2, with the ports 28 of the plunger 27 out of register with the ports 26 of the intermediate cylinder 22, the plunger being retracted and the intermediate cylinder retracted, and the detent 34 of spring 33 being out of engagement with the ratchet 16, the spring 33 being compressed as the intermediate cylinder is held back by the stronger spring 32. A pressure of the bulb operates the shutter in the usual manner by air-compression which extends through the connecting-tube to the cylinder 18 and the interior of the plunger 27. As none of this air can escape, it forces the intermediate cylinder 22 and plunger 27 to the right, both moving as one piece, and as the stud 25 presses forward spring 32 it causes detent 34 to engage with a tooth of the ratchet 16 and the parts take the position shown in Fig. 3. The ports 26 and 28 are still out of register, and air cannot escape, and so long as this air-pressure is maintained inside of plunger 27 the spring 30 is kept compressed. When the operator allows the shutter-bulb to relax the air-pressure within plunger 27 reduces, whereupon the spring 30 expands and moves the plunger 27 to the left,

bringing ports 28 into register with ports 26, the intermediate cylinder 22 at this time not retracting, as the spring 33 exerts no pressure against it, the spring 33 being retained by the ratchet, and cylinder 22 is held in contact against spring 32 by the reactive pressure of spring 30. It should be understood that the tension of spring 33, which is hooked to the ratchet, is not sufficient to turn the ratchet, on account of the considerable relative power required to turn the ratchet, due to friction and film-resistance. The parts thus take the position shown in Fig. 4. It should be understood that the parts attain the position shown in Fig. 4 practically instantaneously upon release of the pressure-bulb, as the cylinder 22 and plunger 27 have a very slight movement.

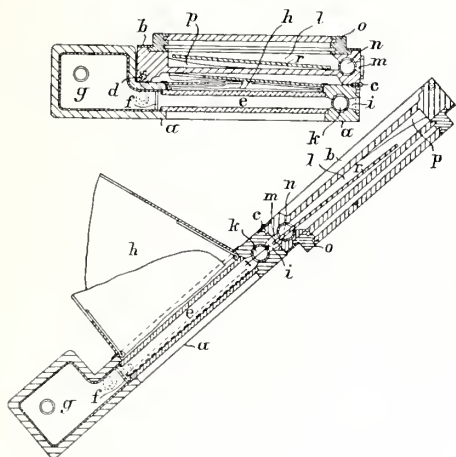
Now when the parts are in this position pressure of the bulb will not operate the shutter, since the air will escape through the connecting-tube into plunger 27 and through ports 28 and 26 into annular space 24, and thence out into the atmosphere. The operator at once notices the non-resistance of the bulb and also that the shutter does not operate, indicating to him his neglect to turn a fresh film into place. Even though this fact is not noticed by the operator it is impossible for him to operate the shutter and produce a double exposure, as every time the bulb is pressed the air exhausts as before. The operator then turns another film into position, which operates ratchet 16 clockwise, which is its only direction of movement, and allows spring 33 to retract, and the detent 34 then disengages and the spring 33 in its retraction moves back cylinder 22 to normal position, compressing spring 30 and moving ports 26 out of register with ports 28, at which time the parts have again taken the position shown in Fig. 2, and the device is now in a position such that the air will not escape, but will operate the shutter.

The device will operate equally well when the shutter is set for a "bulb" and "time" exposure instead of "instantaneous," although contrary to what would be casually apparent. In a time-exposure the second pressure of the bulb need be very slight compared to the first, as is well known, because the first pressure must be strong enough to set the shutter open, while the second pressure need only furnish the small power required to release it, the power for the opening and closing movements of the shutter having been provided by the first pressure. Thus in a time-exposure, after the second pressure, although the ports are in register and air can escape, its escape is restricted sufficiently to cause the necessary slight pressure to build up to close the shutter.

903,432. DAYLIGHT DEVELOPING-APPARATUS FOR PHOTOGRAPHIC PLATES. CARL FRIEDRICH AURICH, Dresden, Germany.

The apparatus comprises two box-like members *a* and *b*, the first of which constitutes a developing-chamber with ruby glass on both sides, so that the progress of development may be watched, and also a receptacle of greater thickness *g* for the developer; the second of which serves as a receiving- and transferring-chamber for the photographic plate, and is provided with an open side and suitable means for receiving the plate from its holder without exposure to light or scratching of the image. It should be noticed in the first figure that there are several inclined ribs *p* in the receiving-chamber *l* which prevent the film-side of the exposed plate *r* from being scratched by contact with the bottom of the chamber; also, as will be seen later, that the plate is developed and fixed film-side up. After transferring the plate from the plate-holder into the receiv-

ing-chamber, as shown in the first figure, the part *b* is over-turned on its hinges *c* from the position in the first figure to that in the second, and brought into line with the part *a* and locked there by a bolt provided for that purpose. The closing-devices *n* and *k*, consisting of slots in the edges of the two chambers and slotted tubes which may be turned into alignment with them, are opened and the apparatus is held in an inclined position, as shown in the second figure, when the plate will slide from the chamber *l* into the chamber *e*. Light is excluded during this operation by overlap-



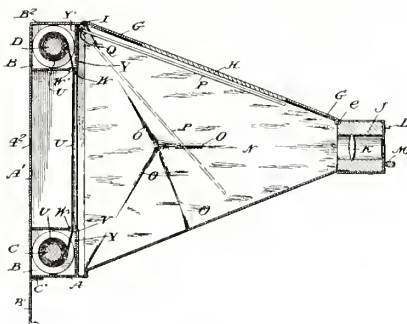
ping grooves and recesses on the adjacent edges of the two chambers. After closing *k* the developer is poured through a stoppered funnel-opening into the receptacle *g*, from which it passes into the chamber *e*. Development takes place on slowly rocking the apparatus, and may be watched through the ruby glass, shaded by the folding shield *h*. The fluid is now run off through the same opening by which it entered and a suitable fixing-receptacle is slid into the grooves of the chamber *b*, formerly occupied by the plate-holder. The closing-device *k* being opened and the whole apparatus being held in the proper slanting position, the developed plate slides back into the chamber *l* and drops into the fixing-bath.

903,523. PHOTOGRAPHIC PRINTING-MACHINE. EDWARD O. WEBSTER, Whiting, Vt.

A machine which may conveniently be hooded to a window or provided with artificial light, and by means of which post-cards may quickly be brought into contact with the negative for printing and afterwards released. The machine is provided with an opening over which a negative may be clamped. Between this and the light a sliding shutter is so arranged that a downward pressure of a foot-pedal opens it and exposes the post-card, which is held in contact with the negative by a presser-block. This block is attached to a curved finger on a rock-shaft, which carries an arm against which moves a cam, attached to the foot-pedal mechanism. When pressure is released from the pedal the shutter closes and the presser-block is turned outward, releasing the printed card and allowing it to drop into a drawer arranged below. A coil-spring is provided to bring the presser-block back into contact with the negative — its normal position.

903,533. FOLDING CAMERA. FREDERICK A. ANTHONY.

This instrument is of the mirror reflecting-type and is intended to use roll-films. Contrary to the usual custom, the supply and receiving-spools *C* and *D* are located back of the focal plane, with the film-confiner *Y* in front; but the most unique feature is the method of folding the leather bellows and consequent disposition of the other parts. When open, the camera has much the appearance of a rectangular funnel, as seen in the figure, but, on being closed, it assumes the shape of an ordinary dry-plate box.



The drawing is a vertical section through the lens. In the top side of the camera is located a focusing-screen *H*, upon which the image from the lens *K* is reflected by the mirror *P*, which is pivoted at *Q* and, by a thumb-screw outside the camera, may be turned to either of the positions shown. In this way the image is seen on the screen full size, right side up, and the same lens through which the exposure is made is the only one used. This lens, the shutter and diaphragms, all of any suitable pattern, are carried by the casing *J*, which is pivoted at *E*, enabling it, when the bellows fold, to assume a position flush with the film-holder, and to be held there by the catch *B*. When the camera is open the casing *J* is held rigidly in position by side-bars with spring-actuated locking dogs and studs, and, upon closing the camera, these side-bars assume a position parallel to the sides of the film-holder.

November 17, 1908

904,005. VEST-POCKET CAMERA. MAGNUS NIELL, New York City.

A new camera of the familiar watch type with an increased number of functions, but without increase of size. Chief among them is an improved shutter and a folding finder.

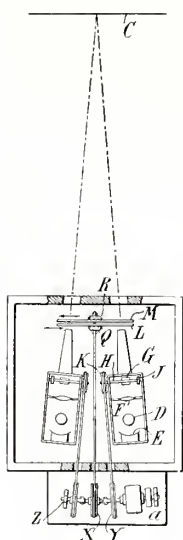
904,064. PHOTOGRAPHER'S FORM AND PRINT HOLDER. MICAHAH B. HARLOW, Tekoa, Wash.

The device provides a simple means instantaneously of adjusting the cutting-form with relation to the print and holding them both in position while the print is being trimmed. The cutting-board is attached on its two sides to a base by a pivoted fulcrum. At one end there is an overhanging cleat and at the other a spring between base and board to hold the latter in an open or inclined position. The print and form are laid upon the board with their edges under the cleat. Pressing the board downward against the resistance of the spring brings the other end into contact with the cleat and holds both print and form securely.

904,212. MOVING-PICTURE MACHINE. CHARLES A. MORAN, Bernardsville, N. J.

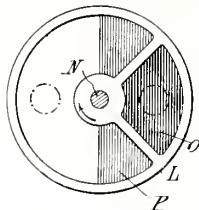
A moving-picture machine, shown diagrammatically in Fig. 4, including in combination a pair of lanterns directed to a common point, and means for obscuring the rays from said lanterns alternately, comprising a pair of half-round screens L and M, rotating in opposite directions in front of the lanterns and each consisting of a substantially opaque portion, a semi-opaque portion and a substantially transparent portion, as shown in Fig. 5. These screens are geared to each other in such a relation that the opaque portion of one is in line with the rays of its lantern when the corresponding portion of the other is out of line with the rays of the other lantern. By this means the successive pictures of the film are thrown upon the screen at a low rate of speed, without disclosing the transition from one picture to the next, thus avoiding the effect of exaggerated rapidity as well as the rapid flashes of light which take place with present machines, due to projections through the transparent spaces between the pictures on the film.

FIG. 4.



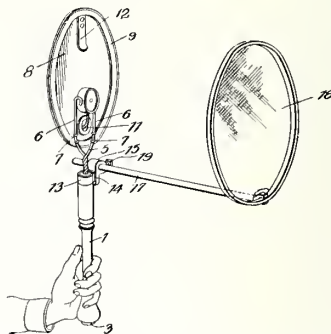
Two picture-films are used side by side, one in each lantern, and an impression of the second film is projected on the screen during the period of transition of the first film. The second film may be an exact duplicate of the first, so that during the transition period of one film the second film is displaying the same impression which was previously displayed by the first; or the second film may have impressions which alternate in point of time with those of the first film, so that while the first film is in the transition period the second film will be displaying an impression succeeding that which has just been displayed by the first film. By means of the revolving screens the display of each film is gradually obscured as the transition period approaches, and gradually lightened after the transition period is passed; which causes a gradual merging of one impression into the next, the succeeding impressions being so nearly alike that there is little or no disturbance of the effect of continuity.

FIG. 5.



904,362. FLASHLIGHT DEVICE. ALEXANDER ROBINS, Pittsburg, Penn.

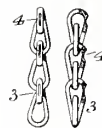
A device to support a cartridge of flashlight powder or a sheet of flash-paper in such a manner that the fuse may be ignited from the rear, thereby obviating the danger of fire from the explosion or from falling sparks, and preventing blinding by the flash. Referring to the perspective view, it will be seen that the resilient wires 6 carry between them the flash-cartridge, as indicated, and also support a fire-proof asbestos disk 8 reinforced with a metallic ring 9 and covered with a metallic screen-cloth to prevent warping.



The fuse of the cartridge is passed through the bushed opening 11 to the back of the device, where it is lighted by a taper, which is stored, when not in use, in a holder within the hollow handle and is removable by turning the threaded plug 3. The spring-clip 12 is provided to hold flash-sheets if they are preferred. To diffuse the light a cheese-cloth screen is provided on the supporting arm 17, which is passed through the lug 15 and held in position by a set-screw.

904,399. DEVELOPING-APPARATUS. GEORGE C. BEIDLER, Oklahoma, Okla.

The present invention relates to the conveyor for carrying film through the developer, and is intended primarily to be employed with the apparatus described in patent No. 810,388 and pending application, Serial No. 310,732.



It has been found in practice that the continuous cords or bands employed with an apron for conveying the film through the developer leave upon it a mark along its edge, and also that the developing-fluids tend to destroy the cords or bands. These disadvantages are obviated by using linked chains made of brass, arranged adjacent to the edges of the apron. They give a better gripping-surface and do not obstruct the free flow of the developing-fluid entirely across the film, because of the fact that the contacting surface of the chain is interrupted by the natural arrangement of the links. Moreover, in the present invention this interruption is still further enhanced by recesses or depressions 4, which reduce the contacting surfaces to a minimum.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings,
Exhibitions and Conventions are solicited for publication



PHOTO-ERA ANNUAL CONTEST JURY

*Lower row, left to right: F. H. Tompkins, J. H. Garo, F. Benedict Herzog, Rudolph Eickemeyer, Jr.
Upper row, right to left: William H. Downes, Wendell G. Corthell, Wilfred A. French.*

NOTES ABOUT OUR ANNUAL CONTEST

THE Jury of Awards, as was announced in PHOTO-ERA for several months previous to the closing-date of the contest, consisted of F. Benedict Herzog, New York, and Wendell G. Corthell, Boston, amateur photographers; Rudolph Eickemeyer, New York, and J. H. Garo, Boston, professional photographers; F. H. Tompkins, Boston, portrait-painter; Wm. H. Downes, Boston, art-critic, and Wilfred A. French, editor of PHOTO-ERA. Every member was present, and an entire day of conscientious work was devoted to the selection of prints to be awarded prizes and honorable mention. This great task

was performed in a highly creditable manner, and seemed all the more pleasing because of the remarkable unanimity of opinion expressed by men engaged in such dissimilar lines of work, even though — with two exceptions — photographic.

Following the impartial custom adopted last year, the name and sex of every contestant remained concealed until after all the awards had been made, when, much to the surprise of the jury, it was found that not one woman's name was on the list of prizes, although this seemingly ungallant treatment was by no means intentional.

A year ago three women were among the prize-winners, including the grand prize, and as

many received honorable mention, while in this year's contest the number of these latter awards was increased to seven.

In all, 1,061 prints were entered, and, although 256 less than last year, 18 more persons were represented — 196 in all, 31 being women. It was quite evident that the contestants had made a more careful selection of their work than hitherto, resulting in fewer but better prints. For the benefit of those interested, the list of contestants and the number of prints submitted by each is published below.

Abs, Charles P.	11
Allen, Elizabeth R.	8
Amos, W. M.	1
Anthony, B. L.	5
Arnold, W. H.	7
Bacher, W. L.	1
Barstow, Henry	1
Bates, R. A.	11
Bauman, Geo.	11
Bell, G. Clinton	4
Benedict, Dr. Albert R.	10
Bennett, Arnold M.	3
Biery, Harvey	1
Bishop, L. C.	2
Bodine, Howard	9
Brackett, Carl F.	1
Bradley, H. L.	3
Brittingham, A. D.	12
Broadie, F. Jaycox	2
Brock, N.	1
Brodhun, W. D.	4
Bronson, F. E.	7
Brown, Fedora E. D.	5
Browne, Carlotta H.	6
Bruehl, Nick	5
Bryant, Mary L.	2
Buhrer, Stephen	3
Burnham, C.	2
Bush, I. E.	1
Cain, Eugene G.	2
Castner, Samuel J.	4
Chapman, R. C.	7
Chapman, Geo.	1
Clarke, C. F.	8
Clogston, Helen W.	1
Cones, Mrs. Nancy F.	17
Converse, Allan Dean	3
Conyers, H. B.	4
Cottrelle, C. B.	4
Craig, Margaret B.	6
Crary, Clare J.	5
Crawford, W. L.	3
Cuff, C. A.	6
Cummins, T. D. P.	16
Currie, Geo. S.	2
Cutting, A. Wayland	1
Day, Dorr H.	4
Day, Edward Carroll	1
Deardon, W.	3
Dickinson, Alice M.	2
Dils, R. I.	6
Ditmas, Charles A.	1
Dudley, Frederick	1
Durivage, F. J.	2
Eitel, Theo.	14
Elmberger, Geo. Casper	4
Field, J. H.	2
Findlay, William	3
Fitch, Alfred L.	16
Fleckenstein, Louis	6
Flegel, C. C.	1
Fleisher, Maurice T.	4
Fournier, Paul	30
France, A. F.	12
Frome, Samuel F.	2
Gage, Edgar S.	4
Garrett, Chas. W.	1
Gatch, Helen P.	7
Gebhardt, H. R.	6
Gibson, E. W.	3
Gilbert, Geo' L.	2
Gilbert, Mrs. Geo. L.	8
Gough, J. Henry	1
Greenman, F. W.	11
Grier, Wm. D.	3
Griffith, J. F.	13
Groff, Wm. B., Jr.	2
Günter, Paul	2
Hage, John	3
Hambly, J. P.	8
Hargett, A. B.	12
Harnden, H. E.	5
Hawkins, Elgrin C.	2
Hayden, Mrs. Chas. S.	9
Henry, J. S.	5
Hiestler, W. D.	3
Higgins, Arthur W.	3
Hill, Mary Brigham	5
Holms, Frank W.	1
Hoppé, E. O.	4
Idlick, Joseph R.	6
Joel, Jacques	1
Johnston, Mrs. May D.	3
Jorgensen, M. H.	7
Kauffman, R. S.	9
Kennedy, O. E.	3
Kilmer, T. W.	4
King, A. E.	2
Knox, W. T.	7
Laity, Warren	4
Lane, Horace P.	1
Leeds, L. B.	2
Leslie, Ethelyn	1
Lillie, R. D.	8
Lillie, Mrs. L. J.	1
Lord, Harry M.	17
Maerz, Aloys	1
Mann, H. C.	6
Marsolais, O. N.	1
Marston, Tovell	1
Martin, Mary	4
Martin, Shirley Vance	8
Mead, T. L., Jr.	23
Merz, Alfred J.	1
Millar, Claude D.	18
Miller, James D.	3
Mitchell, Percival H.	3
Mitchell, Roy R.	1
Moore, Helen	4
Morisset, Geo. O.	3
Mullen, Mary H.	9
Murray, Louis R.	23
McGowan, R. A.	1
McKissack, James	6
Nelson, R. C.	3
Painter, J. H.	1
Parrish, W. & G.	13
Pasewalk, Aug. J.	6
Pasewalk, Reginald	1
Peabody, Henry A.	7
Pearce, Mrs. W. W.	3
Pettibone, H. V.	2
Pettigrew, Frank	1
Phipps, Chas. R.	3
Pickering, C. Ney	12
Poarch, L. M.	4
Poole, W. F.	2
Porter, James V.	4
Potter, Bruce H.	2
Price, Frank C.	6
Quinn, Charles	2
Rausomer, Marie	3

Rawson, W. A.	2	Spanton, Wm.	4
Reece, Jane	7	Spurgeon, J. M.	5
Reeve, Laura	10	Stephenson, R. L.	2
Reilly, John J.	5	Storms, Robert	6
Reynold, R. S.	1	Stortz, Gustav G.	1
Reynolds, H. A.	2	Sulzer, C. D.	4
Rheinheimer, Wm. A.	6	Swenson, Gustave F.	4
Rhodes, Annie G.	1	Swoyer, A. E.	2
Rich, W. Carlton	6	Tate, Arthur C.	3
Richey, Guida Hoen	1	Thomas, Bessie W.	5
Robuts, Florence M.	13	Thompson, G. E.	5
Root, Clarence J.	21	Thurlow, Harold A.	1
Scheer, Geo. H., M.D.	22	Truman, Geo. H.	6
Schlesman, Mrs. C. H.	1	Turpin, Charles	5
Schmitt, Raymond	12	Van Coelln, Flora	3
Schwarz, Ira D.	5	Vandervelde, Chas.	7
Scott, Walter C.	5	Van Namee, Arthur	4
Seabrook, Ernest P.	5	Wilcox, C. Sherrill	4
Send, George B.	1	Williar, Harry D.	2
Shawner, Roy	2	Wilson, Hallie	1
Skinner, Arthur	7	Woodside, A. Eleanor	4
Skolfield, S. S.	2	Worthington, Julia	6
Smith, D. Vincent	27	Wright, Mrs. M. M.	33
Smith, F. H.	2	Yauch, M. A.	5
Smith, Henry W.	2	Zerbe, William H.	20
Smith, Merl	6	Zoller, Chas. E.	4
Snider, J. R.	8		

Maurice Tracey Fleisher, of Philadelphia, winner of the \$100 Grand Prize, although a young man of twenty-four, is an amateur of eleven years' experience and has been especially fortunate in his fitting for pictorial photographic work through education, personal association and foreign travel. Educated at the William Penn Charter School, he early identified himself with its photographic exhibitions, as he did later in the camera club of the University of Pennsylvania, where he took courses in chemistry, arts and sciences. After serving as president of the University Camera Club he founded the Intercollegiate Photographic Association, to which considerable space in PHOTO-ERA has been given, and of which he served as president two years. Mr. Fleisher is also a member of the Photographic Society of Philadelphia as well as the Drexel Camera Club, and in addition to several awards from these various organizations he has won other prizes given by photographic magazines. Although not a frequent contestant, he is usually successful when he does enter the lists. Since "Our Illustrations" department was made up Mr. Fleisher advises us that his prize print was made from an 11 x 14 negative copied from a heavy, rough platinum print no longer in his possession. The original negative is 5 x 7, and was broken.

Louis Fleckenstein, who won the \$10 award in the portrait class, has been somewhat proficient in the use of pencil and brush from an early age, although he has followed a business career, and made use of his artistic ability only as a form of recreation. His photographic career was commenced about twelve years ago, when he learned the elementary stages of the art from two friendly camera-users. From an adjunct to his brush and pigment, photography became the absorbing theme and, when the Salon Club was organized, Mr. Fleckenstein was made its director, in which capacity he served until the fall of 1907. Finding that photography had begun to interfere with his business, he gave up his business and engaged in photography professionally.

Leaving his native city, Faribault, Minn., he moved to Los Angeles, Cal., and opened a studio in the Blanchard Art Building. Here, in the home of one hundred artists, he can give full scope to his ideals and aspirations.

James McKissack, of Glasgow, Scotland, who succeeded in carrying the first genre award of \$20 across the Atlantic, is a new-comer in our contests, and Mr. H. Snowden Ward, of London, who called upon us a few days since, tells us that he is thus far little known there. However, the character of the work submitted leads us to predict that better is to follow, and we hope to see him well represented in one of the prominent English or Scottish exhibitions.

The second genre award of \$10 went to Dr. George H. Scheer, of Sheboygan, Wis., whose work is well known to readers of PHOTO-ERA. Dr. Scheer is a young and successful practising physician, and photography has been his pastime since he was about fourteen. Most of his work, however, has been done in the last four or five years, during which time he has developed a very keen sense of the pictorial, which enables him to see pictures in almost everything he finds about him. He has been fortunate in his surroundings, which offer much good material, and he has been aided by a knowledge of drawing and the correct use of the lens. Congenial companionship, with a little friendly rivalry and criticism, have also been of value, and for this he is indebted to Drs. Zierath and Winchester, both pictorialists of a high order. We regret that professional duties prevented both of them from competing in this contest.

Paul Fournier, of East Aurora, N. Y., winner of the first landscape award of \$20, has been working in photography seriously for about five years, although he is still a very young man. Just what induced him to become a photographer he cannot say, unless it was love of the work. Surely that is sufficient reason, and it probably accounts for his many successes in portraiture and landscape. Mr. Fournier has a very large collection of his own distinctive photographs of present-day celebrities; in fact, we venture to say that, so far as we know, it is the largest of any possessed by a man so young. For reasons which modesty prevents us from stating, Mr. Fournier enters few contests other than our own; but his work has been exhibited in the Fifth American Salon, exhibitions of P. A. of A., the Providence Art Club and the Arts and Crafts Shop, Columbus, O.

The work of Wm. H. Zerbe, of Richmond Hill, Long Island, N. Y., who won the second award of \$10 in the landscape class, has been known to readers of PHOTO-ERA for several years, and his connection with the Department of Photography of the Brooklyn Institute of Arts and Sciences, the Postal Camera Club, the Postal Photographic Club, and his services as director of the Salon Club and Associates in Pictorial Photography have won for him a much wider circle of admirers. He is an exhibitor in all the principal exhibitions and is successful in

most of the many contests he enters. This is because he realizes the power of simple subjects, knows how to make the most of them and possesses the technical ability to produce just what he wants. For the past twenty-five years Mr. Zerbe has followed a business career and made photography his recreation, during which time he was obliged to pass through the elementary stages of photography, learning as best he could without assistance; he is a self-made pictorialist. Of late he has felt that he would be more congenially employed in another line of business, and last October he entered the field of photography professionally in his home town. PHOTO-ERA offers him its hearty congratulations and best wishes for success.

Charles Vandervelde, whose superb marine secured for him the first award of \$20, is a frequent contributor to PHOTO-ERA, having been a camera-user for the past nine years. He is a man in early middle life, is engaged in the manufacture of interior woodwork, practises photography for recreation, takes it seriously and has high hopes that photography may eventually be universally accepted as a fine art. Landscape and marine subjects are his favorites, and the shores of Lake Michigan have a never-ending attraction for him. Like every sincere worker, he has opinions regarding pictorial photography. He is not an extremist, but has ideals, and believes in them. Above all, he has that rare qual-



PHOTO-ERA ANNUAL CONTEST ENTRIES

ity of tolerance for the ideals of others. "From the time Galileo was thrown into prison, up to the present," says Mr. Vandervelde, "the public has been late in its recognition of many kinds of endeavor. Of course, much depends upon the work; but when the photographer can make pictures which will cause the beholder to forget the photograph in the feeling it conveys, it will not be long before photography will be recognized as a fine art. The greatest works in painting, sculpture, music and the drama have made their appeal to the emotions, and the works of the artist-photographer must do likewise if photography is to have recognition. I believe it will have it sooner or later. There is plenty of time, however; photography has many years before it."

The print by S. S. Skolfield, of Portland, Me., which won the second marine award of \$10, is an eloquent example of the possible result of buying a small camera. Mr. Skolfield tells us that his first outfit cost him \$1.75 about eighteen years ago, but since that time his work has improved and, likewise, his equipment. To-day we look upon him as one of the foremost pictorialists in this country, especially because of his marines, snow-storm and wet-day effects. He has been an exhibitor several times in the Salon, and for the past three years president of the Portland Camera Club. Mr. Skolfield is bookkeeper for a wholesale drug firm and has found photography a very pleasant form of relaxation in leisure time.

R. S. Kauffman, of Wilkes-Barre, Penn., winner of the second award of \$10 in the animal class, is an art and photo-supply dealer, and his good judgment regarding pictures is evident in his own photographic work. He has been interested in the art since 1898, and a frequent exhibitor in the Salon and other prominent picture-shows.

The \$10 award in the high-speed class went to T. W. Kilmer, New York City, another man who, like "the three doctors of Sheboygan," has taken up photography as a means of diversion from the busy routine life of a physician. Photographing moving objects is one of his favorite lines of work, and in it he has had many successes. Dr. Kilmer considers photography an ideal form of recreation.

ELMENDORF'S SUCCESS

DWIGHT LATHROP ELMENDORF's remarkable success in the illustrated lecture field is but a natural result of natural fitness, progressive study and admirable management, coupled with a high standard of excellence steadily maintained. He has many advantages which others, trying to rival him, do not possess. Always known as a skilful photographer and expert colorist, he has traveled extensively, makes his own photographs, colors his own lantern-slides, is an accomplished linguist, an accurate observer and a fine speaker. *Voilà tout!* He who has not enjoyed one of Mr. Elmendorf's delightful entertainments has keen delights in store for him.

His success in Boston, this season, has been remarkable, the house, one of the city's largest auditoriums, being packed at every performance by a distinguished audience. Our advice is, attend, without fail, the Elmendorf lectures on Norway, Holland, Switzerland and Italy!

NEW YORK CAMERA CLUB

THE Camera Club of New York City has opened the current season very auspiciously. Since it has moved into its new and magnificent quarters, 121 West 68th St., the club has manifested extraordinary activity as compared with former years. The prophecy, made last spring, that the club would go to pieces has not been fulfilled, and is not likely to be. Its members are showing a wholesome spirit of activity and progress, and, what has not been known for many years, a uniform feeling of good fellowship now prevails. The secretary reports constant accession of new members, some of whom are really high-class workers as well as of social prominence. A members' exhibition opened November 16, for several weeks, and proves the club is regaining its former prestige. That the club, as an organization, will again be a potent factor in local as well as international photographic affairs, and a source of inspiration to all workers striving for the highest and best in photographic achievement, is confidently anticipated by all who are familiar with the character of the men now directing the club's fortunes.

A FAMOUS FLASH-POWDER

Its name is "Blitzlicht" (flash-light). A product of the Berlin Aniline Works, 213-215 Water St., New York, "Blitzlicht" has exceptionally valuable properties. It is safe — can be mailed without danger — economical and gives an intensely brilliant light.

LANGUAGES SELF-TAUGHT

OUR editorial on mastering a foreign language, in the November issue, created wide-spread interest among photographic workers, especially those who contemplate a visit to Dresden next year, and we sincerely recommended the Language-Phone Method, as we had thoroughly examined the system, as well as the machines. The speaking and pronouncing-manual for German is certainly the essence of effective simplicity, and dull indeed must be the person who cannot make rapid progress under the guidance of that master of philology — Dr. Richard Rosenthal. In his preface to the manual he correctly declares that the ear is naturally the first and most important organ of sound and, for that reason, of language, and must, therefore, be addressed first and principally. The student must have the accent and intonation of the words in his ear before the tongue is able to reproduce them. He then refers to pronunciation and accent and the rapid results gained by intelligent combination of hearing, seeing and speaking, as is forcibly exemplified by the Language-Phone Method.

PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXII

FEBRUARY, 1909

No. 2

PUBLISHED MONTHLY BY WILFRED A. FRENCH, 383 BOYLSTON STREET, BOSTON
Entered as Second-Class Matter, June 30, 1908, at the Post-Office at Boston, under the act of March 3, 1879

YEARLY SUBSCRIPTION - RATES

United States and Mexico, \$1.50. Canadian postage, 35 | Foreign, \$2.25. Single copies, 20 cents each. *Always payable in advance*
cents extra. Single copies, 15 cents each

ADVERTISING RATES ON APPLICATION

WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our careful consideration. While not accepting responsibility for unrequested contributions, we will endeavor to return them if not available, provided return postage is enclosed.

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JOHN CHISLETT
WINTER SUNLIGHT
FIFTH AMERICAN PHOTOGRAPHIC SALON



PHOTO - ERA

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The Fifth American Photographic Salon

American Section

MAUDE I. G. OLIVER

STARTING in Milwaukee in December, the important itinerant exhibition of pictorial photography, which is the external evidence of certain cogent activities of the past year, progressed to Pittsburg, and from there will make a tour including several other important cities. In these two centers it has been received with unqualified enthusiasm. Records of this sort prove that an achievement by the camera need no longer be discredited as a fine art. Granted, a photographic artist need never go to the extreme lengths that some painters do, disdaining altogether the necessity for a likeness in a portrait; still, the bald fact of a faithful reproduction of a man's features does not continue any more to claim the sole attention in portrait-production by means of the art-science. Further, the notion of flattering characterless portraits is no longer prevalent among the best photographers. The more recent, but quite as ill-conditioned, fashion of stagy, sentimental posing, also, has been superseded, almost universally, by the straightforward, serious composition for the sake of spaces and tones in the plan of a picture. Likewise, in the divergent realm of landscape interpretation, the photographer of today consults as much his innate sense of proportions and relations, coupled with his theoretic knowledge of esthetics, as he does the recording of a statement of nature. He has learned to distinguish, to select, to arrange and to subordinate. His imaginative performances, moreover, are practically unlimited in their scope for artistic effect. Grave and at times whimsical, or again verging towards mysticism, this most creative class of photographic expression reaches, occasionally, to the coveted height of a masterpiece — granting, to be sure, that such a term may never be lightly used. Men like Fournier, with his inborn French temperament, or Dr. Eisen or Phillips, or, again, women like the Parrish Sisters, or Emily Pitchford, dignify the science of photography into vital art. It is not that these minds have made of photography what it is. Photography existed all the while, ready to be wooed by her rightful lover, a being who has the soul. When one possesses the spirit of interpretation, the voicing of art in whatever medium becomes no problem at all.



W. F. ZIERATH, M.D.

A HARD PULL

FIFTH AMERICAN PHOTOGRAPHIC SALON

The drama, poetry, music — all the various branches open up before one with incredible facility. All the muses merge into one muse for the service of her devotees.

This preamble does not mean, necessarily, that an artist in his chosen vehicle of expression will *always* be *uniformly* successful. Very frequently he is not successful, in fact. It does not mean, even, that the most representative names in the current photographic display stand for the high-water mark of what their author can do. In some cases, of course, this is the fact; but in the majority of instances either the exhibitors have done much better in the past or else they will accomplish greater things in the future. Nothing is so fatal to art as stagnation. The instant that an artist cannot indicate variety in his work, the instant that its quality and charm cease to fluctuate, at that instant he has lost the gift of inspiration.

Viewed as a whole, the present exhibition is on much the highest level of any yet seen. The average is better and the portion below the average is far superior to what it was in former years. It is also noticeable that professional photographers are better represented than has been the case hitherto.

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SALON



C. W. CHRISTIANSEN

EARLY MORNING

As the present headquarters of the Federation is in Chicago, it was necessary to start the Salon from there, although the initial public appearance was in Milwaukee. In order that the highest possible standard of excellence might be obtained, it has always been the policy of the organization to invite the service of a jury of painters for a final selection. This year it was deemed that each contributor would be more fairly treated if all the works were brought before such a jury instead of some having been previously sifted.

For the administration of this office, a more representative band of men could not be procured than the four who served in that capacity the present season. John F. Stacey is the president of the Chicago Artists' Society; Edgar Cameron, the well-known decorator, served on the Jury of Awards at the Paris Exposition in 1900; Albert Krehbiel is a young man who is successfully carrying out the important mural commission for the Illinois Supreme Court Building;



WALDO E. STRAVER

FIFTH AMERICAN PHOTOGRAPHIC SALON

CHILDREN OF THE TOILERS

he also teaches in the Art Institute; and Walter Marshall Clute is a painter of marked ability, aside from being an instructor in composition at the Art Institute.

When one is requested to select some forty works for mention and about sixty present themselves as particularly noteworthy, it is a difficult matter to determine just where to begin. However, among the pictures in the current display which, despite a manifest tendency to exaggerate minor accents of illumination, rivet the attention, is a group of genre-studies by W. and G. Parrish. The imaginative, spiritual charm of these artists' performances is, indeed, remarkable. The sweet, ethereal character of "The Annunciation" is particularly appealing. In diaphanous drapings of gauzy white, a young girl is seen in this picture with a startled, awed expression on her face. Her pose, accentuated by the glimmering light thrown down from a rose-window in the wall behind her, is indicative of the timid wonderment of the girlish countenance. "Constance Crawley as Hamlet" demonstrates the dramatic possibilities of the art of these gifted co-workers, the Misses Parrish. The "Melancholy Dane" is represented with eyes looking straight out of the picture in strange introspection, his chin resting in his left hand. The interest is effectively focused by means of the face being framed in the large, soft collar turned up about the ears.

A landscape that claims instant attention is contributed by Dr. Gustav Eisen. It is called "Vesuvius." A warm light gray distinguishes this print in color from its fellows. In composition it is also quite individual, the top branches of trees cutting into the lower line of the enclosure and the sluggish smoke from the crater's mouth forming a cone of vapor over the heavens. Something of the vigor of the Berlin Secessionist school is noted in another entry by the same artist. This is the "Via Appia Nuova," in which a solid, flat mass of leafage is spread like a bouquet from the branches of two tall trees. In the sky a tumult of restless cloud-forms makes a mottled pattern across the sky. "In the Heart of Algiers," an upright, representing a narrow street, the appearance is given of a column of light in the center. Spreading so as to fall upon the tops of the buildings at the left, this light, although quite simple and dignified, takes on a very interesting shape. Dr. Eisen is not so original in this production as he is in the other two, but it is musical in its pearly tones.

Paul Fournier, in his three portrait examples, manifests imagination of a rare order, together with an insight that is startling. "Portrait of a Young Man," Rembrandtesque in simplicity, denotes that keen delineation which painters sometimes acquire. His "Profile Study," showing a woman with hair loosely knotted at the back of her head, evinces a splendid painting-quality throughout the work. The waist worn by the sitter is of light material, and the background, which is kept flat, is of just the right depth for a harmonious effect. A thoughtful, almost prophetic, expression is noted in the "Portrait of Miss Elizabeth Buehrmann" as the eyes peer from the enveloping darkness out of the picture, into space. The costume suggests old Florentine facture, and the pose is adapted to the picturesque style of the garb. Then, the somber and poetic interpretation called "Sunshine After Rain" — a landscape of exceptional power — claims



DR. PEDER BRUGUIÈRE

PORTRAIT

instant notice. The character of the entire print is very dark — deep green — relieved only by the old-fashioned, white house, itself lowered to a neutral key, and its indistinct reflection in the watery foreground. This print, under the title "An Old English Castle," was reproduced in our January issue.

William H. Phillips delights us with "The Bridge at Kamakura." Quite as characteristic as the bridge itself is the splendid tree with spreading, crooked branches. "A Street-Corner in Ponta Delgada," by the same artist, is a noteworthy description. Another, a softer performance, is seen in his "Canal, Ghent." Here one feels especial pleasure in the reflections of quaint buildings beautifully toned in flat masses. "The Inlet," a small picture in rich brown finish, is still another print from the studio of this gifted pictorialist. It depicts a skilful use of the high horizon in composition. An example of singular refine-

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SALON



GEORGE F. HOLMAN

A FOGGY EVENING

ment is offered by Emily Pitchford in a "Mother and Child." The baby's aimless gaze is directed out of the picture and the mother's face is pressed tenderly against the little head. The judiciously repressive treatment of the mother's head adds materially to the artistic effect of the composition. "The Moon Goddess," another print by the same hand, although lacking the human touch of the former and not so finished, technically, is refreshing as the cool light of a fairy's torch. The "Goddess" holds a hand-mirror, which reflects her delicate profile.

Referring to profiles, F. J. Bruguière exhibits a small study of "Miss B. Wood" in this class. The picture is a sepia and framed close in a harmonious wood molding. The head takes a natural, easy pose. The features are attractive, interesting. The hair is left loose, and the somber scheme of coloring is heightened only by the white lace waist, the not characterless fabric of which enters into the decorative plan. Jane Bartlett offers, among a group of genres, a notable

child's head in profile, under the title of "Henry." It depicts a straightforward lad, his hair clipped in Dutch fashion, who impresses one with his honest, sturdy intentions. The demure little lass with bare shoulders, also in profile, Miss Bartlett designates as "Margaret" is a further evidence of the artist's sympathetic delineation of childhood.

In this particular field of portrait-expression none of the exhibitors displays a more pleasing vein — not unlike that of Mrs. Carine Cadby — than has Hervy W. Minns, of Akron, O. Of this artist's three essays of children, the two subjects of girls, "Virginia" and "Marian," are the most attractive. "Virginia" appears to be a quaint child, whose life is more in the world unseen than it is in a visible, tangible existence. A rather tragic little lady, "Marian" impresses us as being — either tragic or filled with wonder, one can scarcely decide. At any rate, whole volumes are reflected in her wide-open eyes.

T. L. Mead, Jr., sends "A Winter Sketch," which discloses a charming network of feathery tree-branches. "Storm-Clouds," a rich bromide print, is a graphic presentation of a thrilling episode in nature.

A treatment with Japanese feeling is a rendition, by B. J. Morris, of the German Building in Jackson Park, Chicago. "A Mosaic in Pearl and Silver," he calls it — an expressive title, surely, when considered in relation with the pale gray tints of the print. "A Wet Day on the Boulevard" shows a woman walking under an umbrella, the shining wet pavement yielding a strong reflection. Her form is silhouetted, in a flat, dark tone, against the perspective of the street. However, "A Profile" should be mentioned as one of his best examples. It possesses the very desirable element of restraint with no lack of originality or force. A curl on the girl's shoulder gives a somewhat old-fashioned touch to the arrangement. William A. Rheinheimer's "Types of the Ghetto," depicting two old women on the pavement of a picturesque street, abounds in human interest notwithstanding the fact that it is quite devoid of the objectionable literary aspect. "Thawing the Switch" is a second contribution of excellent merit from the acceptable printing-frame of Mr. Rheinheimer. The two large tonal studies of reflections in water by T. B. Gotham are especially fine. Particularly soft and restful is the "Afterglow, No. 1." The white hulk "At the Dock" amid its dark, rich surroundings, forced into agreeable prominence according as its splendid proportions would demand, is really distinguished. A very dignified work, also by the same worker, John F. Jones, and in this vein, too, is "The Old Freighter." C. W. Christiansen sends a delightful print which he designates as "A Winter Night," in which the chilling light of the moon, quietly resting upon a heavy snow, has been most vividly portrayed. An entirely opposite phase in nature is "Early Morning," by the same artist. It is a well-ordered picture, simple and harmonious in arrangement and extremely pictorial.

In a truly lyrical strain, likewise, "An Evening Impression," by Dwight A. Davis, was conceived. Merely a band of trees, stripped of their leafage, would not invariably be regarded in the light of a "picture;" but certain mysteries in this performance dealing with nature and supplemented by intelligent treatment,



GEORGE H. SCHEER, M.D.

FIFTH AMERICAN PHOTOGRAPHIC SALON

MIDSUMMER



DR. GUSTAV EISEN

VIA APPIA NUOVA

FIFTH AMERICAN PHOTOGRAPHIC SALON

Mr. Davis has fathomed to a delightful issue. "Con Amore" and "Contentment" are further expressions of this artist's ability. The idea of "Contentment" is well brought out in the work by that name. Truly no more cozy a scene nor one with greater suggestion of contentment could be fancied than one of this sort. A girl in old-fashioned garb with voluminous skirts is seated rather in side-view with a comfortable cat on her lap. Shadows from bare trees advancing into foreground form the leading elements, together with the dark line of soft distance, of the "Evening Light on Wet Snow," which is from the hand of Robert E. Weeks. It is a well-balanced composition; and the idea of wet, yielding snow is most admirably conveyed. Practically, only three tones were employed in the description of "A Misty Morning," in which Mr. Weeks has presented a dark-sail ship at anchor facing the observer. Altogether foreign to this class of subject is "The Old Orchard." This is a low panel. It is a study in values, calling into play a scale of grays of different depths.

Always the happy selection of a frame in connection with any picture, be it in whatever medium it may, is an esthetic delight to witness. Edward Brown, of St. Louis, is not disappointing in this regard when he gives us his "Drifting," handsomely mounted in green to correspond with the print and having a frame to match. Too great emphasis can scarcely be placed upon the importance of



WILL D. BRODHUN

TOMORROW 'S ANOTHER DAY

FIFTH AMERICAN PHOTOGRAPHIC SALON

this definite branch of picture-making. Certainly its mission is as essential as the finding of a good composition. The finding of the composition provides the possibilities of a picture, but the successful framing of the composition is necessary for the actual completion of the work. One is attracted, likewise, to Mr. Brown's admirable, though somewhat hastily-executed, genre, catalogued as "The Waif." The subject is a plaintive little figure, half clad, and seated on a flight of steps near the street pavement. It is the frail form of a little girl, one of humanity's unfortunate children, that is turned away in a stoical attitude of dejection.

R. L. Sleeth, Jr., has never appeared to better advantage at the Salon. "A Rainy Day" is a thoroughly direct and forceful achievement, and "Portrait of Mr. E. M. C." is in his most serious vein. "Newfoundland Fishermen" is a triumph in good values and an excellent composition. This is true, also, of his surf-views — superb examples of marine-photography. Of these, "Breaking Waves" sounds a chord of perfect harmony. Original and felicitous in composition, masterful in technical manipulation, this picture rivets the attention of all lovers of the sea. The present Salon exhibition abounds in excellent sea-pieces; yet, for startling realism — a pictorial effect at once original and thrilling

— none surpasses Franklin I. Jordan's "Crashing Surf." The picture is admirably named, for one seems actually to hear the noise of the impact, as the wave dashes against the rocks. George C. Elmberger makes use of a strange, unnatural light in his "Lengthening Shadows." The trunks of four trees, with but little low foliage, occasion the diagonal shadows which give the picture its name. "The Dawn of Day" over the water, by W. H. Zerbe, is exceedingly faint as an impression, but a most satisfying delineation. "No Breeze, No Tide," enunciates stronger contrasts, however, and "The Path to the Mill" relates a quaint bit of country scenery from the industrious dark-room of the artist. "Listening to the Pine-Trees" is an imaginative creation sent in by Fannie Williams, of Chicago. A woman draped in a simple white gown with a background of pine branches constitutes the arrangement.

In spite of a delightful harbor-scene, Katherine Bingham makes her strongest appeal through her portrait-lens, "The Little Duchess" being a charming example of her ability to manage genre-subjects. Clarissa Hovey is another woman photographer and, like Miss Bingham, a professional worker excelling in felicity of expression when recording an interesting phase of childhood. The look of innocent wonderment in her picture of "Frank" has been exceedingly well caught and sympathetically rendered. One cannot help admiring, too, the thoroughly artistic treatment of the subject, especially the appropriately soft rendition of the hair and gown.

All dark, except for a few accents of light on the face, neck and hands, with a streak of drapery at the left catching the light, is the remarkable "Hagar" submitted by F. E. Monteverde. The straight folds of the drapery descend to the floor in severe, vertical lines from the entire stretch from elbow to elbow as the figure leans against a support with her arms up to the level of her shoulders. John Chislett, among other alluring works, depicts an Indian summer effect in an example of particularly pleasing quality, which he designates "October Woods." The portrayal of the glittering, tremulous effect of sunlight Mr. Chislett seems to have made his own, and "In Fairy Land" conveys this impression in a most realistic and delightful manner. Portraits of Wm. F. James, the photographer, and of John C. Johansen, the painter, offered by S. L. Gates, are convincing renditions. Louis Fleckenstein sends "A Study." It is the head of a girl with loose hair, her head raised and partly turned toward one in a most charmingly sweet expression. The print itself is particularly soft and agreeable. Dr. C. George Bull, of Alameda, Cal., is fortunate in his appealing evening-effect in brown. Two strips of clouds across the sky, a mass of dark trees at the left, and these, supported by the group of light sheep, unite in contributing to a simple but logical composition.

Henry Ravell was represented by seven multiple gum-bichromates which reflect much credit upon the skill and taste of this painstaking artist. A suggestion of Daubigny is seen in the landscape entitled "Saltello," its small accents of green and rich quality being telling elements in the picture. The "Popocatepetl" describes a mountain against the sky balanced by delicate tones in the

foreground. Pearly grays in the sky and on the mountain are relieved by faint yellow. Admirable action is felt in the performance listed as "A Hard Pull," the work of Dr. W. F. Zierath, of Sheboygan, Wis. A couple of teams struggling with a heavy load on the moist beach is, to be sure, adequate material for the delineation of action. However, the ability to express dignity and restraint is not always easy, and this, we consider, Dr. Zierath has accomplished. "The Snow Path"—a favorite winter-theme — while superior technically to the former print, is scarcely so successful in its entirety. We object to the equal lengths in the sections of the zigzag path. Still, this criticism may be compensated for in the excellent balance of the heavy shadow of the path with the houses and trees. "Toilers," by the same artist, again exemplifies the pictorial possibilities of a commonplace subject. The management of perspective in the long line of workmen is worthy of commendation.

The work of Will D. Brodhun is nothing if not unconventional. In the selection of his theme he is, certainly, original, and in the treatment he evinces an agreeable personality. Daring, without much apparent deliberation, is his method of procedure, especially when he is telling a story. "The Reader of the Picture-Page" is a subject that does not tempt the mettle of the average craftsman. The difficulties are obvious. Yet Mr. Brodhun, probably realizing the obstacles of such an undertaking, overcomes them with consummate ease; and it is to be observed that the little model's hair-ribbon is discreetly low in tone. The achievement is worthy of sincere and generous applause. In an entirely different vein is his other contribution, "Tomorrow's Another Day." The artist here has left much to the speculative faculty of the observer. Perhaps the line of smoke, visible in the extreme distance, suggests a fast passenger-train carrying its freight of human workers to their suburban homes after the close of a busy day. This element of suggestion is a felicitous note in the poetically-conceived creation.

Among the photographic themes most frequently employed is a street-scene during a rain. The version by Vernon Calvert-Hart, entitled "A Rainy Day," has the special merit of picturesque surroundings — a feature denied to the other interpretations of this interesting subject. George F. Holman, on the other hand, avails himself of a line of trees in imparting pictorial effect to his rendition, which he designates as "A Foggy Evening." Mr. Holman's picture gains, also, by being printed in a rich, blue-black tone — carbon — to a high degree in keeping with the character of the subject. Thus, the feeling of wetness, greatly enhanced by numerous reflections, becomes very real.

One of the regular exhibitors at the Salon is William T. Knox. Acting as a foil to his group of landscapes is a genre, entitled "Toilers." This is a well-balanced composition, with excellent values, and presents, with an admirable conception of truth, an every-day episode in Greater New York. The picture "Cypress and Ivy," representing Walter A. Scott, may not possess the elements of a notable achievement, but it has the merit of being a little apart from the conventional in landscape photography. The play of sunlight as it slants between



KATHERINE BINGHAM
THE LITTLE COUNTESS
FIFTH AMERICAN PHOTOGRAPHIC SALON



the ivy-covered trunks is extremely agreeable, and many a painter, ready with brush and palette, would seize upon this subject with enthusiasm. Of Dr. George Buttler's three prints, "The White House" seems to possess the strongest pictorial quality — a little prosaic subject, perhaps, and of the sort that has not drawn the fire of the average camerist of late years. It is evident that the artist has been a trifle too generous with the picture-material, for the omission of the twigs and pool in the immediate foreground would have enhanced the balance and simplicity of a beautiful rendition. The feeling of the wintry atmosphere has been capably translated, and the restraint in depicting the white masses cannot be too highly praised. The several portraits by Peder S. Bruguère commend themselves as high-class, professional productions. Where there is so much activity in commercial portraiture throughout the civilized world — in this country, particularly — it is a pleasure to be able to invite attention to examples that are planned and executed in a true artistic spirit.

Dr. George H. Scheer, Dr. W. F. Zierath and Dr. Walter H. Winchester compose a group of amateurs whose many achievements in the domain of pictorial photography have given to their little town — Sheboygan, Wis. — much enviable publicity. It is not, perhaps, too much to say that the efforts of these three gifted members of the medical profession may have much to do in shaping the esthetic development in a community that might, otherwise, be barren of artistic appreciation for some time to come. Dr. Scheer's sincere landscape interpretation, "Midsummer," is a noteworthy accomplishment. The separation of the picture-planes is, perhaps, a little too abrupt; but there is no denying the strength and grandeur of the prospect as presented by the artist.

As an original departure in the portrayal of child-life, "Children of the Toilers" claims instant sympathetic attention. The artist, Waldo Emerson Strayer, deserves to be complimented on the eminent pictorial success he has here achieved, and on the thoroughly natural and felicitous manner in which he has pictured the subject. Here is much food for meditation — the little ones gazing with ingenuous interest upon the great, pulsating plant in which their fathers, no doubt, are toiling. The arrangement of the picture, with the wooden posts and rails boldly placed in the foreground — high above the vast and stirring manufacturing establishment — is most praiseworthy, as is, also, the obvious technical mastery. Among the few animal-subjects on view, the portrait of "Princess" — a magnificent specimen of the Newfoundland family — invokes admiration. The values are interpreted with remarkable fidelity and the harmony of tone is most satisfying. Paul Wierum won the highest award for this, a technical and admirable achievement, in a recent Round Robin Guild competition. The picture was adequately reproduced in PHOTO-ERA for September, 1908.

With so much of vital interest really demanding to be commented upon, it becomes quite impossible to notice in justice a large number of the most distinguished contributors. Therefore, we shall be obliged merely to mention the names of the following artists, together with their most successful offerings: B. F. Langland, "Dawn on the Plains," recording Indians on the dark ground;



WILLIAM A. MACNAUGHTAN

THE DAY IS DONE

FIFTH AMERICAN PHOTOGRAPHIC SALON

W. A. Macnaughtan, "The Day Is Done"—a landscape of idyllic beauty — and "A New England Landscape;" Mary Lyon Taylor, "Study" and "Madonna;" F. A. Morgan, "Falling Waters," showing a portion of Niagara; Clyde Merrell, "Pond-Lilies," a decorative study; Harry Maxsted, "Whistling to the Bridge;" W. McG. White, "Marine;" R. M. Weed, "The Little Black Door" to Duse's garden, Florence, Italy; M. G. Norton, "The Gipsy"—an admirable character-study; Elizabeth R. Allen, "Mother and Children;" Herbert S. Troyer, "Sawin';" T. L. Mead, Jr., "A Winter Sketch;" R. S. Kauffman, "November Dusk;" C. N. Smith, "The Pool;" Russell W. Taft, "A Reflection;" Max Patitz, "Portrait of Miss A. E.;" J. R. Peterson, "January Thaw;" H. F. Perkins, "A Guest from the Woods;" George B. Goodwin, "Drifting;" Robert S. Vernon, "The Poplars," a row of these slender trees in perspective; George Alexander, "Tulips" and "The Brook"—an exceedingly pretty landscape; George E. Starr, "A Pastoral"—an attractive landscape with cows enjoying a grateful shade; B. J. Morris, "A Winter Day;" J. Borry, "Portrait of Captain Kjeldsen;" D. H. Brookins, "Look Down Randolph Street"—a pin-hole photograph; George W. Leighton, "A Young Book-lover"—a boy reading near a window — and the inviting shore of a lake entitled "A Sheltered Shore;" William Spanton, "The Wood-path in Winter;" Alice Burr, "Venice," and Edward F. Ryman, "The Balcony."



CLARISSA HOVEY
FRANK
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WILLIAM A. RHEINHEIMER

TYPES OF THE GHETTO

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Essentials in Sulphide Toning

PHIL M. RILEY

ALTHOUGH this process of toning bromide and gaslight prints is an easy one, the beginner often has a little difficulty in working it. The composition of the solutions used is not of so great importance as the condition of the sulphide and the prints to be toned. Thorough washing of the prints after fixation is necessary to remove all trace of hypo and prevent the formation of Farmer's reducer with the ferricyanide in the toning-bath, resulting in weak prints. Better and richer prints are obtained with a toning-bath which is very strong, and to obviate blisters and softening in such a bath, the prints should be transferred from the wash-water to a five per cent solution of alum for five minutes. Rinse, and then bleach as much as possible in a bath containing one-quarter ounce each of potassium bromide and potassium ferricyanide to the pint of water. Rinse the prints after bleaching and immerse in the sulphide toning-bath. This should be kept as a twelve per cent stock solution of sodium sulphide made only of dry crystals. For use, take one ounce of stock to ten ounces of water. Toning is complete in a few seconds, and the print should finally be washed thoroughly and dried in the usual way.

A Simple Autochrome Method

ALFRED WATKINS

I THINK it will be most convenient to give, first, details of the method I propose, and to follow it with any comments. It will be seen that I aim at attaining exactitude in time for exposure and time for development by simple means; that a dark-room light is not required, merely a darkened room; and that fewer solutions are required than in the Lumière instructions, the intensifying and subsequent clearing being omitted. The Lumière formulæ are not departed from except for the first development. The bottles of solution required are reduced to four; namely, first developer, reversing, second developer and fixing; and, indeed, if the second developer is, as I advise, made up each time of using, only three bottles need be provided, instead of the eight of the original instructions.

EXPOSURE

This is gauged with the aid of an actinometer; namely, a Bee meter, which must be fitted with the special Autochrome dial, as there is a radical difference in the calculation from an ordinary exposure. The light falling on the subject is tested; if in full sunlight expose the meter to the sun; if part sun and part shadow test both full sun and the light from sky with sun shaded from meter, and take the average to calculate with. The calculation is made exactly as with the ordinary meter; the plate-speed for Autochrome plates, using the Autochrome light-filter behind the lens, is 2. The front dial is revolved until the stop used is opposite 2, and then against the figure or space representing the light-test there will be found the exposure to give.

If the light-filter is fitted behind the lens, no allowance need be made, in focusing, for the fact that the plate has to be placed in the plate-holder with the glass side facing the lens.

One curious point must be remembered when using the special Autochrome meter. If the light is calculated as minutes (for interior work), and the exposure-figure therefore read as minutes, it is necessary to calculate with a plate-speed of 1 instead of 2.

It is possible that different batches of Autochrome plates may vary, and that a different speed-number than 2 (perhaps higher) may be required.

FIRST DEVELOPMENT

I advise the use of the Watkins concentrated time developer — not because it is better than other developers for the purpose, but because I know of no other way of attaining that exact adjustment of time for temperature which is essential for uniform results. This particular developer is provided with a temperature calculator encircling the bottle. It should be used double strength. Measure out two drams of the concentrated solution for each ounce of developer required, and fill up to the quantity with water. Add five minims of 10 per cent bromide solution (one-half grain bromide) for each ounce. The time of development for



FRANKLIN I. JORDAN

CRASHING SURF

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a temperature of sixty degrees is three and one-half minutes, and if the indicator on the bottle is set to $3\frac{1}{2}$, other times for other temperatures can be read off the scale. The plate is placed in the dish in the dark, the developer poured on, the dish covered over, and the light instantly turned up so as to set or notice the clock or watch for the time of starting development. A thermometer is consulted for the temperature, and care must be taken that the developer is made up from a jug of water which has been standing for some time in the room, so as to attain its temperature. When the time indicated by the thermo-calculator on the bottle has elapsed, the light is turned down and the plate washed. The first washing and all subsequent treatment is conducted without removing the plate from the dish at all. This avoids handling the edges of the plate with warm fingers, a fruitful source of frilling. The surface of the plate must never, under any circumstances, be touched with a finger until it is finally dry and finished. A finger-mark before exposure always shows in the final result.

First Washing.—Hold (in dark-room light) under a very gentle flow from the tap for twenty seconds, keeping the plate in the dish. If the tap-water is of different temperature to the room, wash from the stock-jug.

REVERSING-SOLUTION

Potassium permanganate	17 grains
Sulphuric acid	1½ drams
Water	20 ounces

Pour sufficient of this in (in the dark), and as soon as the plate is covered full daylight can be used for this and all future treatment. Leave in, rocking the dish, for three minutes. The reversing-solution has not good keeping-qualities, and should be made afresh after a week.

Second Washing.— As before for forty seconds.

EXPOSURE TO LIGHT

Expose to daylight for at least as long as the actinometer takes to attain full tint. If the work has to be done at night, burn a foot of magnesium ribbon within a few inches of the plate — held almost upright in its dish.

SECOND DEVELOPMENT

Sodium sulphite	24 grains
Diamidophenol	4 grains
Water	2 ounces

This solution will not keep a day. I advise that this be made up each time just before commencing the first development. After the first time of weighing, the quantities of the solids can be guessed near enough, as the exact activity of the developer is unimportant, it being necessary only for it to act long enough to darken all the silver bromide left in the film. Develop for three minutes for sixty degrees; longer development for colder temperatures, as indicated on scale.

Third Washing.— As before for forty seconds.

CLEARING-SOLUTION

Reversing-solution	½ dram
Water	3 ounces

This should be poured on for ten seconds, unless it is desirable to reduce the general density, when it may be left in for twenty to forty seconds. It acts as a weak reducer.

Fourth Washing.— As before for thirty seconds.

FIXING

A fixing-bath is made up as follows:

Hypo	3 ounces
Potassium metabisulphite	1 dram
Water	20 ounces

Sufficient of this is poured on the plate (in the dish as before), and allowed to act for two minutes.

Final Washing.— Still leaving the plate in the dish, it is placed under a gentle drip from the tap for five minutes, taking care that the water falls just within the spout of the dish, and not direct on the plate, or blisters will result. The plate is then placed on edge to dry. It may be varnished with a celluloid or benzole (not spirit) varnish, but this is more often omitted.

Care must be taken that all the solutions are of the same temperature, for if there is a considerable difference frilling will result. I have just lost one pair of plates by using the reversing-solution soon after mixing, when still warm from the dilution of the sulphuric acid. For the same reason the fixing-solution, being icy cold when freshly mixed, should not be used for a time.

COMMENTS ON THE METHODS

In making an Autochrome, it must be remembered that the exact time of exposure and development of the first image is all-important, for there is no room to get equally good results (as with ordinary negatives) with varying exposure. The reason is that the whole of the film of silver salts is used up in either the first image (the negative) or the second. If too much is used to make the first there is not enough thickness left for the final image; and if the first image is under-exposed or under-developed there will be too much of the final image, which will be too dense all over. In fact, the two images may be regarded as a coin and the die from which it is stamped, the two fitting exactly into each other, but the one dissolved away before completion.

In using an actinometer to gauge this exact exposure, it was at first discovered that it did not appear to give the right ratio between good and poor (as interior) lights. In fact, different speed-numbers had to be used indoors and outdoors.

This was at first put down to a want of orthochromatic quality in the meter-paper; but I soon pointed out that the error was in the wrong direction for this to be the fact, for the meter-paper already darkened too quickly (in proportion for the right exposure) in a feeble or yellow light. I traced the discrepancy to a failure in the usual law that intensity of light and duration of exposure are inversely proportionate, which law is the basis of the usual calculating-scales of a meter. Abney had long ago pointed out that with feeble light this law sometimes failed, and the cutting down of light by the starch grains and the color-filter has the effect with Autochromes. To overcome this, I found it best to make a new calculating-front to the Bee meter, which makes the necessary correction, and permits the same speed-number to be used in and out of doors.

Messrs. Lumière's earliest instructions made a great point of exactitude of time for the first development, and laid down two and one-half minutes as an unalterable time. Here was a great defect, for, although they mentioned a standard temperature, it is practically impossible to develop at a uniform temperature all the year round, and a variation of time to allow for change of temperature is practically indispensable. My own experience was that the two and one-half minutes for the pyro-ammonia developer had to be increased to as much as five minutes in the winter.

In Messrs. Lumière's new and modified instructions they evidently attempt to compensate for changes of temperature by my method of an observation of the time of appearance. But, unfortunately, they depart from what is a necessity in the factorial method; namely, a developer of constant composition. They evidently attempt also to compensate for errors of exposure by variations in the



DR. GEORGE BUTLER
THE WHITE HOUSE

P. J. MORRIS
A MOSAIC IN PEARL AND SILVER
FIFTH AMERICAN PHOTOGRAPHIC SALON





T. L. MEAD, JR.

STORM CLOUDS

FIFTH AMERICAN PHOTOGRAPHIC SALON

amount of alkali added. But, as an observation of the time of appearance gives no clue as to whether a variation of such time is due to temperature or to wrongful exposure, I regard their new method as radically unsound. It would be sound to use the factorial plan with a constant developer, and rely upon other means to keep exposure uniform. I prefer, however, to dispense with any need to examine the image by dark-room light, and allow for variations of temperature by a thermo-scale, securing uniformity of exposure by the use of an actinometer exposure-meter in the manner I have detailed.

I consider that unless fairly large window-transparencies are attempted a stereoscopic slide is by far the best outcome of the Autochrome process. It is a



ROBERT E. WEEKS

EVENING LIGHT ON WET SNOW

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completely satisfying finished production, about which no one remarks, "I suppose you will get prints from this," and is also in a convenient form to use as a lantern-slide if desired.

In my own practice I use two $3\frac{1}{4} \times 3\frac{1}{4}$ plates side by side in a special carrier to fit my $7\frac{1}{2} \times 5$ camera, which, of course, is fitted with a pair of lenses, a pair of light-filters, and a division in the camera. A quarter-inch strip is cut from the outside edge of each plate, so that the images come the right distance apart when reversed and mounted on a glass plate for the stereoscope; or the miniature stereoscopic camera of Jules Richard can be adopted.—*British Journal of Photography*.

Enlarging with Your Own Camera

EDWARD C. DAY, A.M.

WE may marvel at a miniature, but it requires size to satisfy. A picture, if very small, is all detail; but enlarge it and the result is to relieve the observer from the strain of concentrated vision and give him a more pleasing, a more favorable impression. The less the effort, the longer we look; the longer we gaze, the more we appreciate. What a delight it is to step into an art-gallery and, sinking down in a comfortable seat in the center of the room, let one's eyes restfully wander over the larger canvases, making leisure note of their pleasing harmonies or striking contrasts, allowing the soul to be stirred or soothed by the artist's conception. It is refreshing; it is satisfying. But we cannot drop into an art-gallery whenever we are tired, nor can we load the walls of our parlors or drawing-rooms with such large and costly canvasses. An album or two may lie on the center-table, and to them we often turn for a quiet reverie. And here let us consider the album. After all, it has its limitations. The limitations are the photographs. Two on a page they lie. The prints originally were $3\frac{1}{4} \times 4\frac{1}{4}$, but after being trimmed they measure less. Miniatures they are, but few of them marvels.

Discontented with such a state of affairs, I determined to change it. A larger camera would solve the difficulty, but, for the time being, it was out of the question. Vacation had arrived and I felt the photo-mania coming on. Why not enlarge some of the best of my old pictures instead of taking new ones? It was an experiment. I knew that one could make his own camera serve the purpose.

The method is simple. The materials are few and inexpensive, so that with a little time and effort you can construct apparatus with which you may make satisfactory enlargements. I made good 8×10 prints from $3\frac{1}{4} \times 4\frac{1}{4}$ negatives. Doubtless it is possible to improve and simplify the method, but I present it as worked out with what materials lay at hand. Enlarging-cameras may be purchased, but to make your own has an educational as well as a commercial value.

The accompanying illustrations will show in general the apparatus and method. A description of the construction in detail, the factors necessary and some of the optical difficulties concerned will be worth considering.

The first essential is a camera that has a removable back or window which may be opened to admit light through the rear. Provided with this, the next matter is the selection of a room. If the washbowl does not lie under the window the bathroom may be used. In my case it interfered; so I selected a north attic room, where the window was low and convenient. Although it faced the north, the light was not pure sky-light, since trees partially intervened. An even source of illumination is imperative. As I desired to experiment on the slower developing-papers rather than on bromide, it was sky light I wanted. As a means, a mirror was used. I tilted it from the window-sill outside at an angle of forty-five degrees and supported it thus with a stout cord. A small mirror was tried

first, but the angle needed for reflecting foreshortened the surface of illumination too much, so another about 14 x 24 inches was unscrewed from an old bureau. This worked admirably. A board with one edge resting on the inside margin of the sill and the other supported on a solitary leg, centrally placed, served as a shelf whereon the camera was set. Onto the shelf I nailed two wooden slats, one on each side of the camera, making a runway in which I could slide it to or from the window. This device, as will be seen later, served to get an approximate focus, while for a finer adjustment the rack and pinion on the camera itself was used.

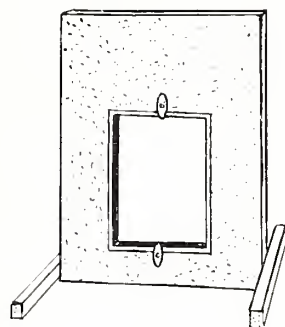
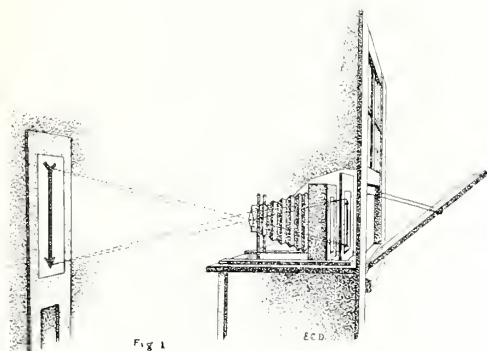


Fig. 2.

A glance at Fig. 1 shows the relation of camera to window. The light must pass through the negative, through the camera and through the lens, whence it is projected onto a screen. An optical difficulty arises in locating the position of the negative. In a camera with the long-draw bellows, the negative may be inserted in place of the plate by means of an open frame substituted for the plate-holder. The trouble appears when the same thing is tried with the ordinary Kodak with short bellows. An image thrown on the screen with the negative in this position will prove quite too large for our purposes. Since the negative lies in the focal plane on one side of the lens, the image is far beyond the focal plane on the other side of it, and, therefore, greater in magnitude. To reduce the size of the picture on the screen is the problem. This is done by widening the distance between the lens and the negative, which means that the negative must be separated from the camera. Either keep the camera stationary and move the negative back, or else allow the negative to rest in a rigid upright frame and draw the camera forward. The latter method is most convenient. The frame (Fig. 2) is made of a thin board, wider and higher than the camera. In it cut an aperture a trifle smaller than a negative, groove it deep enough for the thickness of two plates (since films, if used, are put between two clear glass plates), tack on rotary latches above and below to hold the negative in place, and set the frame in a permanent upright position behind the camera and close to the window.



R. L. SLEETH, JR.

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BREAKING WAVES

This done, the screen, upon which the picture is to be projected, must be prepared. A large drawing-board might be adapted to the purpose. I made a rough yet rigid easel which was quite satisfactory. (See Fig. 3.) A piece of smooth board of adequate dimensions is raised to a proper height by nailing on a couple of slats. A short board serves as a base to which these are fastened. A prop in the rear braces the whole in a firm, upright position. Nail three little blocks, one behind and two in front, as feet on the baseboard, because three points of contact are steadier than a whole surface resting on the floor. A sheet of white paper may be ruled off in concentric rectangles ranging from 6 x 8 to 12 x 14 inches and stretched across the board. Ribs of an old umbrella make an excellent means for clamping the sensitized paper in place. Stretch one rib across the board above the largest rectangle, allowing half an inch to project above the largest rectangle, allowing half an inch to project on both sides, and bind in place by passing a string from one end to the other behind the board and tying. (See Fig. 3.) Fasten another horizontal rib below the series of rectangles in like manner. Slip the ends of two vertical ribs under the horizontal ones. These vertical bars, being movable from side to side, will clamp the edges of any width paper desired. Clamping is facilitated by letting the lower ends of the vertical ribs swing free until the paper is in place. The apparatus is now complete for operation.

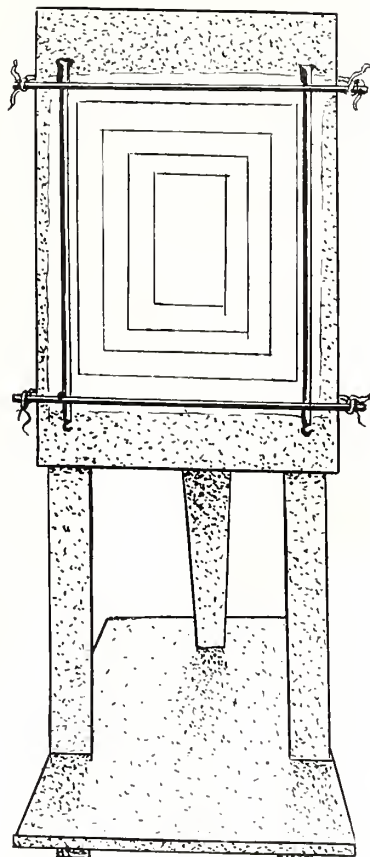
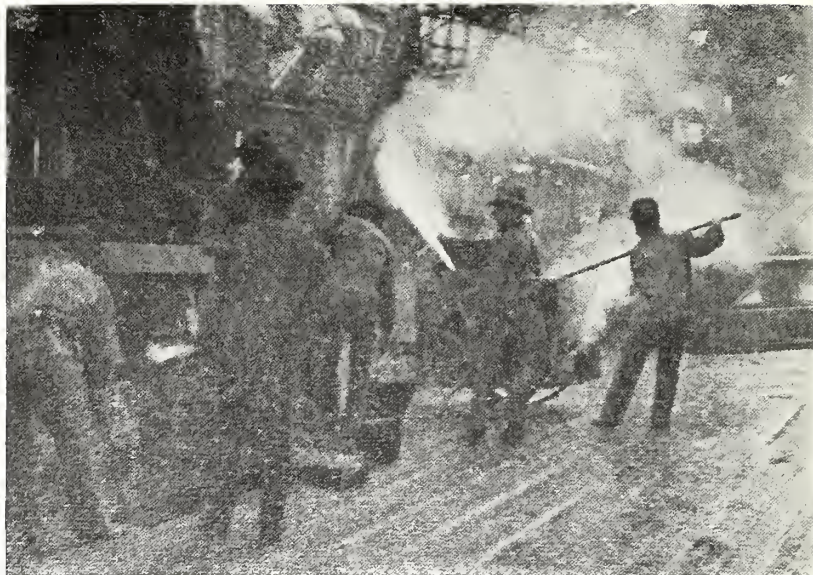


Fig. 3.

Exclude all light except what passes from the mirror through negative and camera. A good way is to blind the window with opaque cardboard and then cut out a sufficient aperture to admit the mirrored light. A black cloth thrown over the camera and negative-frame and pressed against or attached to the card-board around its aperture will confine the light to its proper channel. If there are two windows, screen one with red cloth or paper, allowing a safe but generous supply of light to work by.

Placing the easel in front of the camera, put a negative upside down in its frame, film-side towards the camera, darken the room, open the shutter, using widest stop, focus by moving the camera to and fro, and then close the shutter.



WILLIAM T. KNOX

THE TOILERS

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With one foot placed firmly on the base of the easel to prevent it from moving, clamp the sensitized sheet in position and make the exposure. Trial exposures with thin strips stretched diagonally across the field will give tentative results from which the time can be judged. A $3\frac{1}{4} \times 4\frac{1}{4}$ enlarged to 8×10 took about ten minutes at mid-day for Argo Lustre. The smaller the enlargement the less the exposure.

Large trays will be needed for these pictures. They are easily made by lining shallow boxes with oil-cloth. Pinholes in the latter may be sealed up with paraffin or candle-drips.

In conclusion, remember:

1. An even surface of illumination is imperative.
2. The relation of film to sensitized paper is the same as in contact-printing.
3. The size of the picture is regulated by the distance from negative to lens, the easel being shifted accordingly.
4. Bromide paper, being as sensitive as a slow plate, must be guarded from the light. Though I did not try it, I believe it could be controlled easily, if used, and would try one's patience less as far as the time element is concerned.

Satisfaction with the results prompted the writing of this article, that others might find a new enjoyment which may be enlarged at will. It is like striking a rich vein in an abandoned mine. Dig up the old, treasured negatives, assay them once more, and see how their value is magnified with their size.

Our Illustrations

THE EDITORS

“WINTER SUNLIGHT,” John Chislett. Data: February, 11.30 A.M.; bright sunlight; Smith single lens, 16-inch focus, used wide open; Ideal color-screen; $\frac{1}{2}$ second exposure; Cramer Inst. Iso. plate; W. & C. Platinotype print; Ortol developer.

“A Hard Pull,” Dr. W. F. Zierath. Data: 5 P.M.; bright light; R. R. lens, 5-inch focus, stop U. S. 4; $\frac{1}{80}$ second exposure; Kodak film; Royal bromide enlargement; pyro tank development.

“Early Morning,” C. W. Christiansen. Data: Goerz lens, 7-inch focus, used wide open; 3 seconds exposure at 6 A.M.; hazy light in October; Seed C Ortho plate; pyro developer; print on Rotograph J redeveloped.

“Children of the Toilers,” Waldo E. Strayer. Data: April, 2 P.M.; bright light; Cooke lens, used wide open; $\frac{1}{25}$ second exposure; Seed 26x plate; pyro developer; platinum print.

“Portrait,” Peder S. Bruguière. Data: 9 A.M. to 4 P.M.; ground-glass side-light in studio; Dallmeyer portrait lens, Series D, 37-inch focus, f/6; Standard Orthonon plate; exposure $\frac{1}{2}$ to 6 seconds, according to time of day; Angelo sepia platinum print.

“A Foggy Evening,” George F. Holman. Data: 10 A.M.; dull, cloudy sky, just after a shower; Collinear lens, f/11; 3 seconds exposure; Seed L Ortho plate; Edinol developer; carbon print.

“Midsummer,” George H. Scheer, M.D. Data: July, 2.30 P.M.; bright light; R. R. lens, 8 $\frac{1}{2}$ -inch focus, used wide open; 1 second exposure; Cramer Inst. Iso. plate; tank development with pyro; enlarged print on Royal bromide.

“Via Appia Nuova,” Dr. Gustav Eisen. Data: June, 5 P.M.; stormy and cloudy; Goerz lens, 4 $\frac{3}{4}$ -inch focus, f/6.8; Goerz ten times light-filter; $\frac{1}{2}$ second exposure; film; metol developer; bromide enlargement.

“Tomorrow’s Another Day,” Will D. Brodhun. Data: August, 6.15 P.M.; back of Collinear lens, f/5.6; Stanley plate; sepia bromide print.

“The Little Countess,” Katherine Bingham. Data: January; good morning light; Goerz lens, 16 $\frac{1}{2}$ -inch focus, stop U. S. 2; bulb exposure; Seed 26 plate; pyro-acetone developer; W. & C. Platinotype print.

“Crashing Surf,” Franklin I. Jordan. Data: August, at noon; poor light; R. R. lens, 5 $\frac{1}{2}$ -inch focus, f/11; $\frac{1}{80}$ second exposure; Cramer Crown plate; tank development; bromide enlargement.

“The White House,” Dr. George Butler. Data: February, late afternoon; Ross Homocentric lens, front combination, 12-inch focus, f/11; Seed Orthonon plate; black carbon print.

“A Mosaic in Pearl and Silver,” B. J. Morris. Data: February, 2 P.M.; soft, diffused light; Goerz lens, 8 $\frac{1}{4}$ -inch focus, stop 16; $\frac{1}{25}$ second exposure; Seed L Ortho plate; pyro developer; enlargement on Platino C.

"Storm-Clouds," T. L. Mead, Jr. Data: August, 3 P.M.; bright light; rapid Rectilinear lens, with Ideal Ray filter, $4\frac{1}{2}$ -inch focus, stop U. S. 8; $\frac{1}{4}$ second exposure; Orthonon plate; M. Q. developer; enlargement on Royal bromide.

"Evening Light on Wet Snow," Robert E. Weeks. Data: February, 4.30 P.M.; nearly sunset; Ross lens, f/ 5.6; Burke & James ray screen; Cramer Medium Iso. plate; $\frac{1}{2}$ second exposure; carbon print.

"Breaking Waves," R. L. Sleeth, Jr. Data: May afternoon; fairly bright light; Cooke lens, f/ 4.5, $6\frac{1}{2}$ -inch focus; $1\frac{1}{10}$ second exposure; Seed 26x plate; pyro developer; platinum print.

"The Toilers," William T. Knox. Data: October, 11 A.M.; dull light and raining; Goerz lens, $6\frac{1}{2}$ -inch focus, f/4; $1\frac{1}{10}$ second exposure; film; pyro developer; Whatman platinum print from enlarged negative.

"The Day Is Done," W. A. Macnaughtan. Data: October, 3 P.M.; hazy light; Cooke lens, $13\frac{1}{2}$ -inch focus, f/6.5; $\frac{1}{10}$ second exposure; Seed 26x plate; pyro developer; Platinotype print.

"Frank," Clarissa Hovey. We regret that the only available data regarding this charming print is that it was made in a studio with side-light in September, about 2 P.M., and that the print was on Curtis & Cameron platinum.

"Types of the Ghetto," William A. Rheinheimer. Data: May, 4 P.M.; fair light; Zeiss Tessar lens, f/6.3; $\frac{1}{10}$ second exposure; Hammer Red Label plate; Ortol developer; Autotype carbon print from enlarged negative.

"Cypress and Ivy," Walter A. Scott. Data: early morning; Collinear lens, $14\frac{1}{2}$ -inch focus, stop 16; Carbutt light yellow filter; Cramer Inst. Iso. plate; pyro developer; print on Eastman sepia paper from enlarged negative.



WALTER A. SCOTT

CYPRESS AND IVY

FIFTH AMERICAN PHOTOGRAPHIC SALON

EDITORIAL

Rapprochement of the Amateur and Professional

THE development of art-expression in pictorial photography has reached such gratifying proportions in this country as to open the eyes of our foremost artists of the brush and chisel. Abundant evidence of this progress has been afforded not only by the exhibitions of the American Photographic Salon — held under the auspices of the American Federation of Photographic Societies — but at any of those of the various camera clubs throughout the United States, and at the annual contests of the *Youth's Companion* and PHOTO-ERA. Many of the amateur camerists are the authors of pictorial creations in monochrome which, for freshness and versatility of invention, pictorial beauty and sympathetic appeal, challenge some of the best works from the painter's easel. The reason is plain enough. The amateur photographer is, frequently, possessed of true artistic temperament, education and culture, one whose tastes have been refined and broadened by residence or travel in European art-centers. Frequently he is a person of leisure and can thus devote himself unreservedly to his hobby. The professional photographer, on the other hand, has no such advantages. He is, usually, a man of modest pretensions, and satisfied with a comfortable income, to earn which he must apply himself with unremitting industry. Your high-class photographer is a business-man, of good, general education, but, somehow, not eager to go out of his way to enjoy the delights of foreign travel. His excursions, one or two during the year, to the meetings of the national or state organizations, seem to afford him abundant scope for change of scene and contact with the outside world. Unlike the artist-amateur, he regards his profession as a source of revenue, only, and is not interested in its artistic possibilities, except so far as he recognizes certain well-known art-principles in regard to lighting, posing and composition — which make for his business success. There are, nevertheless, a few professional practitioners who have had the best practical training and study in art, and this advantage enables them to give adequate expression to their artistic impulses and individuality. Unfortunately, the work of the professional artist in photography has been rarely seen, of late years, at national and state conventions. Whatever the cause, means should be found to stimulate active interest among the best professional portraitists, so that their achievements may be seen at future conventions. PHOTO-ERA has already offered several suggestions, one regarding the appointment of a competent jury and the other in reference to the admission of the public to the pictorial display.

And there occurs to us still another idea, one which would tend not only to impart increased interest to the pictorial department of a photographers' convention, but to exhibit simultaneously, and under favorable auspices, the best work of the full-fledged professional, the semi-professional and the amateur. This is

now being done, to a certain extent, by the American Photographic Salon, and it is, also, a feature of PHOTO-ERA'S Photographic Contests. The professional does not figure conspicuously at either of these competitions, simply because no energetic effort has been made to interest him. But whenever the professional seeks the coöperation of the amateur-worker in behalf of an affair conducted under really favorable conditions — such, for instance, as will prevail at the convention of the Photographers' Association of America, at Rochester, N. Y., next summer — the prospect is always good for a joint display of high-class professional and amateur photography. If the work representing the creative genius of our foremost professionals can be seen side by side with that of the amateur, it will be an event of extraordinary importance. Aside from the fraternal feeling engendered by such an occasion, an exceptional opportunity will be presented to study the comparative merits of each class of exhibitors. The professional will find inspiration in the fresh originality, creative imagination and poetic feeling of works entirely the product of exalted artistic impulses. No vestige of commercialism in these beautiful prints! Each of them bears the impress of loving hands in the making. Nor will the professional photographer fail to admire the beautiful tones and odd effects proceeding from new printing-processes, so that also, from a technical view-point, these expressions of a refined, distinguished, artistic impulse are revealed in a language new and appealing to him.

On the other hand, the amateur has the opportunity to observe the ways of the thoroughly-equipped practitioner, one who has learned first to master the mysteries of lens-craft, the intricacies of lighting and posing, the technical operations of the dark-room, printing-department and retouching-desk, before essaying the difficult rôle of interpreter of human character.

Among other valuable knowledge to be garnered by the intelligent amateur is the treatment of white drapery — the most exacting task in photographic portraiture; the adjustment (level and direction) of the portrait-camera; the trick of diverting the eyes of the subject for a profile or a heavenward gaze, and, above all, the successful portrayal of the sitter *at his best, and not at his worst*. It will then, perhaps, dawn upon the observant amateur that his high-class professional brother is, at least, a master-technician and, as such, is entitled to the respectful consideration which he has denied him these many years.

The amateur forgets that not infrequently, during an occasional suspension of routine work, the professional will try his artistic powers on a genre, a still-life or a landscape, attaining results which, for beauty of composition and treatment, may compare favorably with the amateur's most brilliant achievements. This suggests the thought that a tentative merging of both interests — for art is nothing if not universal — would make for a closer relationship of professionals and amateurs. Each class of photographers can learn from the other; there can be no doubt of that. It is equally true that photography will be practised for many years to come, both as a vocation and as a pastime, and there is no more occasion for ill feeling among its devotees than in the practice of other arts — music, poetry and the drama. The world is large and there is room for all.

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus



MRS. WILLIAM DURRANT

SECOND PRIZE — CHILDREN

GOING FISHING

It was the custom of the ancients to hold in the month of February a feast which they called "The Feast of Expiation." The time seemed specially fitting for such a ceremonial. The earth lay dormant, there were no signs of life in field or wood; so these dull February days were chosen and set aside for the purpose of taking account of the losses and the failures of the past year and to make plans for the needs and work of the coming year.

Possibly we amateurs would do well to paraphrase — if one may use such a term in this connection — the old custom and use February days for taking account of one's photographic failures and losses, and make plans for the work that is to come when once more earth wakes from her winter slumber.

It would seem, when one comes to consider it, that the amateur could not spend these days to greater photographic advantage than to go through his stock of negatives, cull from them and destroy those which have no sort of value, and then classify those which remain.

Possibly many of the Guild members make a record of their negatives in the order of time in which they were made. Unless one is specially systematic, this is perhaps all the record he has of his negatives. A sub-index under the different classes is of the greatest assistance to one whose stock of negatives runs into the hundreds.

The negatives would fall naturally under four divisions: Landscapes, Marines, Portraits and Still Life. All that could not be included in any of these classes might be termed Miscella-

FIRST
PRIZE
CHILDREN



Copyright, 1908, O. C. Reiter

O. C. REITER

A RURAL BEAUTY

neous. Still another class which would be of value would be those negatives which have a special personal interest, or are connected with family events and happenings.

Such a classifying of one's negatives would not necessarily disturb their numerical order, for that would still be retained and added to as negatives were made; but if one were looking for some special landscape picture, instead of having to run through the list of his negatives he would simply have to scan those indexed under the Landscape class. Figure-studies would be in the Portrait class, and watercraft in the Marine class.

If one has not followed the suggestion made in a former number and made a book containing those prints which relate to the family history,

such as portraits in chronological order, records of gala days in the household, etc., etc., February is just the month to do it in; and when one is classifying his negatives is the opportune time to select these negatives and make the prints.

An index is the greatest time-saver in the world. If one indexes his material as it comes to hand, instead of waiting until there is a large accumulation of matter to go over, he will find himself in possession of a valuable treasure which grows more and more of worth as the time runs along; and we all know that time runs on, whether we wish it to or not. That is one of the things one might do on some of these dull February days — index one's photographic matter so that if one wants a formula of any kind, or an article on

some special subject, all he has to do will be to turn to his index to ascertain whatever he has bearing on the topic in hand.

Let us make the most of these February days, for though

“Summer is a glorious season,

Warm and bright and pleasant,

Yet the past is not a reason

To despise the present.

So while health can climb the mountain,

And the log lights up the hall,

There are pleasant days in winter, after all!”

LEAVING OUT AND TAKING OUT

THE amateur frequently makes negatives some parts of which do not add to, but, on the contrary, detract from the merits of the picture. As these portions cannot easily be removed from the negative itself, owing to the tendency to overdo the matter and destroy what cannot be replaced, one looks for some method to overcome the difficulty. This may be found in working on the print itself, either by leaving out in the finishing-process the offensive portions, or by removing them from the print after it has been made. The former may be done on a platinum print with brush development, and the latter on the gas-light print by means of a reducer which bleaches out the portions not desired.

The former method is very successfully done by an amateur with some artistic sense and skill in handling the brush, and both of these qualities may be developed if not already possessed.

The materials for the brush development consist of a sheet of plain glass quite a bit larger than the print, so as to leave plenty of margin for handling, two wide sable brushes, two medium round ones, and two or three camel's-hair brushes that can be drawn to a fine point, photographic blotting-paper, surgeon's cotton made up into dabbers and plenty of pure glycerine.

The developer is prepared as follows. Take three glasses, which, for convenience, should be labeled Thin, Medium, Strong, and in the first put one dram of developer to an ounce of pure glycerine; in the second put two drams of developer to an ounce of glycerine; and in the third put a half-ounce of developer to an ounce of glycerine. A fourth glass will be needed, and in this is put the plain glycerine.

Before beginning work make a print from the negative and develop it in the usual manner, and, when dry, take a chalk crayon and work over those parts of the print which are to be blocked out entirely, and lighten those parts which are too dark, getting the effect which it is desired to attain in the perfect print.

When this is done one has a working-guide which will be a wonderful help when working on the print to be made by the brush-development process.

The print is now made, and the back brushed over with a good coat of glycerine, and laid face up on the plain glass. It is next given a good coat of glycerine on the face of the print, using one of the wide brushes and working swiftly and

lightly. All superfluous glycerine is blotted off with a piece of blotting-paper. Always use the same brush for the plain glycerine; and to avoid mistakes the plain glycerine should be in a different kind of glass than that used for the developers. A convenient place for it to stand while one is working is at the right hand, for when it is needed it is needed very quickly.

Now, having carefully observed on the guide the parts which are to be fully developed, dip a brush in the medium developer and brush the places very lightly and swiftly, and the moment the right depth of tone has been reached smear the place with plain glycerine to arrest the development, blotting off the surplus with clean blotting-paper. Where the print is to be deeper use the stronger mixture of developer.

The main difficulty of the work is in not leaving the edges too hard; and to obviate this use the very weak developer and one of the cotton dabbers, patting with very light touches, and working very quickly. Indeed, the whole process must be done rapidly, for the developer acts quickly and there is danger of some parts being over-developed while one is striving to bring up the tone in other places. A liberal quantity of glycerine used will hold back the development and enable one to bring out the right depth of tone without getting it too deep.

The fine brushes are used for line-work, and one can do very effective things after a little practice. There are such great possibilities in this method of print-development that one ought to become an adept in its use.



WILL D. BRODHUN

INTERESTED

THIRD PRIZE — CHILDREN

As soon as the print has developed far enough remove it at once to a tray containing the muriatic acid bath, and, with the second large brush, wash over the surface of the print to remove all superfluous developer and glycerine, the acid bath not working as quickly as with a plain print on account of the glycerine protection. Three or four clearing-baths are required, after which the print is washed and dried. If, after the print is dry, it lacks lines or shadows, these can be introduced by applying lampblack, moist water-color with one of the fine brushes. The Japanese water-color also works beautifully on a platinum paper and cannot be distinguished from the tone of the print itself when skillfully applied.

The second method of eliminating the undesirable parts of a negative is that of removing them from the finished gaslight or bromide print by means of a bleaching-solution. This is very quickly and easily done, and for the novice is perhaps to be preferred to the glycerine process with the platinum print.

The bleaching-solution is made as follows: iodine solution, four grains of iodine to every ounce of methylated spirits; potassium cyanide solution, four grains to every ounce of water. To use, take thirty minims of the iodine solution and five minims of the potassium cyanide solution to one ounce of water. This is the normal strength, but one must have a weaker solution, say half this strength, and a stronger solution which is used to bleach out places entirely. The chalked guide will be needed in this process quite as much as in the platinum glycerine process.

For this process one needs two brushes, one medium and one small, and plenty of surgeon's cotton. A sheet of clear glass is required for the print-support and plenty of clear water for quick rinsing and washing.

Observe carefully the parts of the print which are to be bleached out white and, with the larger brush, wash them over quickly, watching the effect, and, as soon as the color has bleached almost out, wash the print, immersing it in a tray of water or letting water from the tap flow over it freely. Dip a piece of surgeon's cotton in water and swab the surface of the print dabbing it dry with a piece of dry cotton. With the weaker solution soften and blend the harsh edges of the print where they come against the clear white of the paper. Keep the print well washed between each application of the bleaching-solution. When the bleaching is practically finished wash the print through three or four changes of water, return it to the glass and, with the fine brush, proceed to work out all the specks which were not removed with the first applications of the bleach.

The one point to be observed is the washing or swabbing off of the bleaching-solution between each application. This precludes the possibility of its running onto parts of the print which one does not wish bleached or lightened.

Some very interesting effects, decorative and artistic as well, may be obtained by the leaving-in or taking-out processes.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

RULES

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

SUBJECTS FOR COMPETITION

January — "Photographs of News Events."

Closes February 28.

February — "Winter Landscapes." Closes March

31.
March — "Historic Pictures." Closes April 30.

AWARDS — CHILDREN

First Prize: O. C. Reiter.

Second Prize: Mrs. Wm. Durrant.

Third Prize: Will D. Brodhun.

Honorable Mention: C. F. Clarke, H. S. Grin-

leese, Arthur W. Higgins, Charles F. Abs, Bertha E. Verge, Harry G. Phister and Otto A. Jakoubek.

Mr. Reiter's print is particularly pleasing because of its simplicity and its truth. The charming bashfulness of the child is admirably portrayed, and it is seldom, indeed, that a studio picture is softer or better lighted. Data: August, cloudy bright; lens at $f/8$; $\frac{1}{2}$ second exposure; Standard Orthonon plate; pyrocatechin developer; platinum print.

Mrs. Durrant's work has been steadily improving, and the print which won for her the second prize is certainly good photography. The oval treatment gives originality to this sort of subject and also a decorative tendency which is rather effective. Data: September, 4 P.M.; bright sunshine; stop U. S. 32 in the lens; $\frac{1}{2}$ second exposure; Seed 26 plate; Velox print.

The third-prize print shows admirable posing and lighting, and we are overjoyed at last to see a hair-ribbon which is not white. Mr. Brodhun deserves special credit for realizing that such a useless accessory is ever a discordant note in pictorial photography. As a minor criticism we believe that the effect would have been more satisfactory if bolting-silk had not been used in printing. Data: July, 3 P.M.; subject seated between two windows; lens at $f/5.6$; 2 seconds exposure; Standard plate; bromide enlargement.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"HOME IS THE SAILOR," F. H.— This is a most attractive marine, and shows a boat with its sails furled being dragged up on the beach by the owner of the craft, while nearby stands a woman with a young child in her arms, both watching intently the movements of the sailor. The lights in the sky are very low on the horizon, and carry out the idea of the picture — that the day's work is done and "home is the sailor, home from the sea." This picture has been trimmed too closely, and one loses the breadth which the whole negative would, doubtless, show. The color of the print is very pleasing and the mounting is in keeping with the tone and the subject.

"WHEN THE CAT'S AWAY," R. L. H.— A very evident effort to illustrate an old proverb. Three children and a room very much disordered — one child, a little girl, dressed in the trailing skirts and big hat of an older person, a boy sitting on the table with a dozen or more bottles of preserves about him all labeled in such large letters that

one who rode in an automobile might read, and a third child taking things out of a bureau drawer. The idea is good, but there is altogether too much in the picture. It is so apparently posed that it loses all the spirit of the subject. Two children would be better than three, and these, the little one who is poking in the drawer and the one who is dressed in her mother's finery. The strong high-light from the window makes an unpleasant patch of white which draws attention from the figures themselves.

"OUR BABY," G. D. C.— This picture shows a baby sitting in a much decorated chair, placed against a wall covered with a figured paper, thus making a very unpleasant background. The figure of the baby is very good indeed, the light soft, the modeling good, and the expression all one could desire in a baby. The unhappy choice of a background and a support for the child destroys all the artistic merits of the picture. The criticism of this print appears in PHOTO-ERA only as an object-lesson of what to avoid in making pictures of babies. So many prints of children show this same defect that this is a finger-post to guide our Guild members into a more artistic method of picturing the baby. Choose a simple background, do not put the baby on a pile of cushions, and do not use a wicker chair. Have some soft material, like a gray Canton flannel, to throw over the chair on which the baby is to sit, or one can use a high-chair which has simple lines. The less there is in the picture besides the baby the better will be the picture.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

C. A. TOWNSEND.— A uranium intensifier is made as follows: make up a solution of uranium nitrate, using eight grains of the uranium to an ounce of water, and a solution of ferricyanide of potassium, using eight grains of the chemical to each ounce of water. Mix the two solutions in equal parts and add to each ounce two drams of glacial acetic acid. Place the negative in this solution until the plate is sufficiently intensified, then wash in several changes of water.

E. M. NASON.— The reason why some parts of your prints are yellow while the rest remains white is because of insufficient fixing or trying to fix too many prints at one time. The lines and markings on the prints may be removed by rubbing the face of the print with alcohol, using a wad of surgeon's cotton and wiping lightly.

DEANE BURRELL.— A formula for hydroquinone developer for lantern-slides is made as follows: make up a solution of forty grains of hydroquinone, one-half ounce sulphite of soda and

ten ounces of water. A second solution is made of fifteen grains of hydrate of soda, eight grains of bromide of potassium and ten ounces of water. To use, take equal parts of the solutions. This developer gives a fine black negative with clear shadows.

FRANCES SENNIT.—In factorial development metal is what is called a long-factor developer and hydroquinone a short-factor. The factor of metal is 30 and that of hydroquinone is 5, according to the calculations of Mr. Alfred Watkins.

B. N. P.—To clean bottles from the stains of photographic solutions use spirits of salt mixed with an equal bulk of water. Sometimes filling a bottle with a strong solution of washing-soda and letting it stand for a few hours will remove the deposit. If the bottle is only slightly discolored, use soap and water and put some small shot in the bottle and shake well. Egg-shell may be substituted for the shot.

FRED. KELLENER.—The best way, and the easiest, to label bottles is to paint directly on the glass with white enamel-paint. This will not rub off nor wash off. Make the letters large and distinct, so that they may be readily distinguished in the dim light of the red lantern.

CHARLES SMITH.—The reason for your photographic solutions turning black is because they have become oxidized; that is, they have been exposed to the air and the oxygen has discolored

them. To prevent this, a bottle which contains a developer should have melted paraffin wax turned over the cork. This effectually seals the contents of the bottle from the air and prevents the oxidization of the liquid.

H. T. R.—The formula which you have and of which the quantities are given in grammes should not be confusing. It can be turned into grains by using the number of grains in a gramme for the unit of calculation. Every gramme contains fifteen and two-fifths grains.

W. L. B.—Do not use glossy paper for your prints. Unless prints are intended for reproduction, a matte surface paper gives far more pleasing prints. Use less restrainer in your developer and you will avoid the greenish blacks in your prints.

JAMES L.—A salting-bath for paper is made of sixty grains of chloride of ammonium, twenty grains of gelatine, and twenty ounces of water. Float the paper on this bath for three or four minutes, then pin up to dry. It can be kept for some time, but the best results are obtained on freshly-salted paper.

BERTHA B.—An article on Ozotype printing will be found in the October number of PHOTO-ERA, 1906. Send the price of the magazine to the mailing-office of PHOTO-ERA and the number will be sent to you, or, possibly, you have the file of the magazine and can look it up yourself.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
Anso Film, N. C. and Vidil	Hammer Extra Fast	Class 4
Cramer Crown	Hammer Extra Fast Ortho	Stanley Commercial
Cramer Crown Non-Halation	Hammer Non-Halation	Class 5
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Cramer Commercial
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Plain
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Ortho
Cramer Trichromatic	Seed L. Ortho	Defender Ortho Slow
Defender King	Seed Non-Halation	Hammer Slow
Defender Ortho Inst.	Seed Non-Halation Ortho	Hammer Slow Ortho
Eastman N. C. Film	Standard Extra	Class 8
Ensign Film	Standard Orthonon	Cramer Slow Iso
Hammer Special Extra Fast	Class 1 1/2	Cramer Slow Iso Non-Halation
Imperial Special Sensitive	Lumière Ortho A	Class 12
Imperial Orthochrome Special Sensitive	Lumière Ortho B	Defender Queen
Kodoid	Lumière Panchro C	Seed Process
Magnet	Class 2	Class 100
Premo Film Pack	Cramer Medium Iso	Lumière Autochrome
Seed Gilt Edge 27	Cramer Medium Iso Non-Halation	Lumière Red Label Slow
Standard Imperial Portrait		
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For February

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of February, on any fine day at noon, when the sun is shining brightly and the lens is working at $f/8$, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if $f/11$, U. S. No. 8, is used; also between 9 and 10 A.M. and 2 and 3 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and very dull light, or if $f/16$, U. S. No. 16, is used. For $f/5.6$, U. S. No. 2, give half. At 11 A.M. and 1 P.M. increase the exposure one-fourth. From 10 to 11 A.M. and 1 to 2 P.M. increase it one-half. From 8 to 9 A.M. and 3 to 4 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds; open snow-scenes without foreground . . .	1/800	1/400	1/320	1/256	1/200	1/160	1/100	1/80	1/64	1/50	1/32	1/4
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds; winter scenes having very light snow-covered foregrounds	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; average snow-scenes	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes; snow-scenes with excessive contrast	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving objects at least thirty feet away	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
Portraits outdoors in the shade; very dark near objects	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
Badly lighted river-banks, ravines, glades and under the trees	1/6	1/3	2/5	1/2	2/3	4/5	1 1/3	1 3/5	2	2 2/3	4	32
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	1/2	1	1 1/5	1 1/2	2	2 2/5	4	4 4/5	6	8	12	96

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS
With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

BORDERS ON PRINTS

The Amateur Photographer and Photographic News reports an instructive demonstration of making borders on gaslight prints, given before the Camera Club of Bedford, England, by W. F. Slater. A short description of this simple and novel method of printing tinted and fancy borders around small prints on large sheets may be of interest to those who use gaslight papers.

"The finished results are similar in appearance to prints mounted in the multiple style, and the depths of the tints are obtained by long or short exposures. Graduated tints may be obtained by holding the illuminant at the corner or side of the printing-frame, allowing the light-action to be stronger at one end than at the other. Variations may be introduced by placing between the negative and source of light bolting-silk, canvas, etc., and here again the effects may be made gray or black, according to the length of exposure.

"The method proper consists of making several masks and openings of various shapes from opaque paper and fixing them to glass of uniform size (old negatives answer admirably) in such a manner that perfect register is obtained with any of the combinations when inserted in the printing-frame with the lower left-hand corner pushed well home. Take an example: place in the printing-frame a glass covered with black paper with a circular portion removed

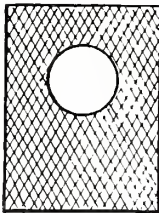


Fig. 1.

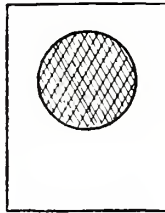


Fig. 2.

(Fig. 1); over the opening place the negative, then the gaslight paper and the back of the frame; expose to light and remove from the frame, taking care to mark the left-hand bottom corner of the print for future reference. If the paper were now developed a circular print on a white mount would appear. But we want a border. Place in the frame another glass with a round mask (Fig. 2), cut a trifle larger than the opening previously used, and fixed in such a position that

if the two were placed together an even border of about a quarter of an inch would appear. Over this mask place the exposed paper, fix in the back of the frame, and expose to the flame of half a wax match. If developed at this stage we should have a circular print with a white border on a gray base. Now repeat this second operation with a larger mask (Fig. 3), and ex-

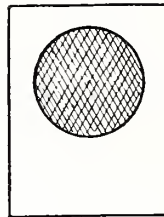


Fig. 3.

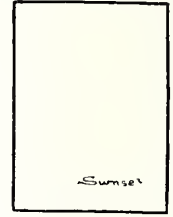


Fig. 4.

pose by burning a wax match at the lower end of the frame. The bolting-silk or other fabrics can be introduced in either of these stages, or, if desired, a title may be added by writing on a piece of transparent paper the words required (Fig. 4) and placing it between the mask and the print. Our paper can now be developed, when we shall find a circular print with successive borders of white and gray, surmounted with a graduated tinted base bearing the title (Fig. 5). Narrow and wide lines, cut out as shown in Fig. 6, are useful openings to make; and when the masks are once made and the fabrics obtained, the variety of changes that can be produced with them is endless."

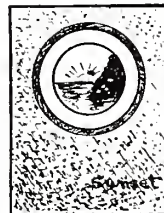


Fig. 5.

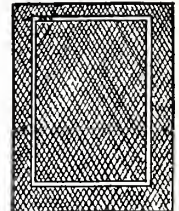


Fig. 6.

AUTOCHROMES BY ARTIFICIAL LIGHT

In a recent color supplement of *The British Journal of Photography* M. René Locquin suggests the use of a blue-glass screen between the Autochrome and the source of light when viewed

by artificial light. This compensates for the loss of true color-rendering which has hitherto made impossible the viewing of Autochromes in the evening. The depth and color of the glass chosen for this purpose must be such that when held up to the source of light the glass appears to have no color; in other words, its color must be complementary to that of the light. M. Locquin has found that the bluish-green glasses furnished by photo-supply dealers for use as focusing-screens in ordinary photography may be used for viewing Autochromes by gaslight.

STAINED FINGERS IN AUTOCHROME WORK

SEVERAL complaints of stained fingers in Autochrome work have come to us, and those who have experienced this trouble will do well to remember that the silver stains are caused by part of the solutions, not all of them. It is the intensifier which does the mischief, but the permanganate reversing-solution is a remedy. Treat the stained fingers with the latter solution, rinse in water and then dip them into the acid fixing-bath.

STEREOSCOPIC EFFECTS IN PHOTOMICROGRAPHS

A RECENT issue of the *Photo-Revue* contains an article and reproductions of excellent photomicrographs by Dr. Estanave. The writer explains that the admirable stereoscopic effect is produced by making two exposures. The camera is attached to the microscope body; the stage is stationary, but the camera may be rocked about ten degrees from side to side between the two exposures, thus giving the required two aspects.

BLISTERS ON DEVELOPMENT-PAPERS

SEVERAL beginners have complained recently that, although they always use the same developer and fixing-bath, their prints are sometimes perfect and sometimes badly blistered. This has, in every case, been traced to the difference in temperature between the two solutions, and workers will do well to have them as near identical as is possible. An old fixing-bath, properly compounded, does not cause blisters; but a new one, used directly after the chemicals have dissolved, will often do so. This is due to the fact that hypo always reduces the temperature of the water it dissolves by several degrees. The remedy is obvious; viz., make the bath an hour or so in advance, or, if this cannot be done, use tepid water, which will be brought down to about the right temperature by the hypo crystals.

TWO TONES ON ONE PRINT

H. J. S. ANDERTON describes in *Photography* a very simple method of obtaining two tones on gaslight and bromide prints, which is especially suited to treating borders on post-cards. The post-card to be treated is exposed, developed, fixed, washed and dried as usual, and may afterwards be toned with any formula, such as cop-per, uranium or iron.

"The card is laid face upwards upon a clean surface," writes Mr. Anderton, "and a mask is adjusted so that the view appears through the opening. The finger is then dipped in vaseline, and this is lightly smeared over the picture, care being taken not to shift the mask. When the smearing-process is complete the card is lifted by the edges and is placed in the toning-bath, which will, of course, be repelled by the vaseline and will operate only on the border portion of the post-card, leaving the picture portion in its original condition. As soon as the toning-operation is finished, the necessary washing is carried out in the usual way, and the card is once more dried. It remains only to remove the vaseline. Most can be wiped off with a soft duster, but if this is not sufficient for the purpose the print can be finished off by placing over it a piece of clean blotting-paper and pressing it down with a hot iron. This will be found to absorb the last traces of the vaseline.

"If it is the view that is to be toned, the border being left untuned, it is, of course, the blank which was left when the mask was cut that must be placed over the card, the vaseline being then smeared over the border. The great thing is to be careful that the whole area to be protected received its coating of vaseline, and that none gets on the part that is to be toned, or patchy results will be inevitable."

MOUNTING LARGE PRINTS

MANY workers have difficulty in mounting large prints, especially those on thin paper. A good method is to apply a good commercial paste to the edge of the print all the way around, lay it on the mount and, with a small sponge, dampen the whole print on the film side with water. Cover the whole with a piece of white oil-cloth, pass a squeegee over it several times and allow it to dry, when the print will be securely mounted without a crease or wrinkle.

A REMEDY FOR HALATION

PREVENTION is always better than a cure, says *La Photographie des Couleurs*, but the latter is sometimes necessary. The halation of an image caused by reflection from the glass of the plate is formed, more especially, in the under layers of the emulsion-film, and it is, therefore, an excellent plan to bleach the whole negative and then redevelop only the uppermost layer. The bleaching-solution is as follows:

Water.....	300 c.c.
Potassium bichromate	5 gm.
Potassium bromide	2.5 gm.
Nitric acid	15 c.c.

When bleached, wash the negative thoroughly, plunge it several times into a concentrated solution of alum, rinse in water and then redevelop in pyro-soda well restrained with potassium bromide. Fix as usual when sufficiently dense, and it will be found that development has taken place only on the surface of the film.

PHOTOGRAPHIC PATENTS

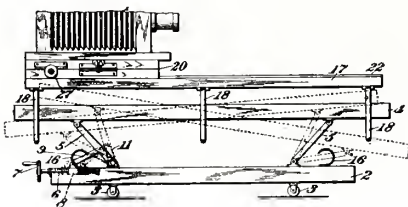
Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

November 24, 1908

904,613. CAMERA-STAND. JOSEPH ARTHUR HENRY HATT, Brooklyn, N. Y.

This piece of apparatus may be constructed in several different ways for different kinds of work, but it is intended primarily for supporting, manipulating and adjusting cameras used for photo-mechanical reproduction processes, whether employing a lens in direct work or a prism or reversing-mirror. The mechanism provides for all the required movements of the camera with reference to the copy,



for any desired inclination necessary for good lighting and, at the same time, is such that any adjustment holds its position firmly. Lack of space forbids the detailed description of the patent specification, but among the chief advantages of this appliance may be mentioned the fact that the camera-carrying bed 17 is freely and resiliently suspended from the table 4 by spiral springs back of and attached to the downwardly projecting members 18, thus providing a strong and effective means of preventing vibration or jar to the camera

905,122. FOLDING PHOTOGRAPHIC CAMERA. FRANK A. BROWNELL, Rochester, N. Y. Assignor to Eastman Kodak Company.

The present invention relates to an improved form of fixed-focus Kodak, patented May 5, 1908, and particularly to the folding legs pivoted to each side of the hinged door of the camera, which, together with the body of the instrument, hold the camera in a level position on a table or stand. These legs are made of sheet metal and fold into recesses in the opposite edges of the door, where they are held by spring-fingers when not in use, and from which they may be withdrawn by tiny latches outside the door.

December 1, 1908

905,306. PHOTOGRAPHIC EMULSION. JACQUES THÉODORE GATEAU, Aix-en-Provence, France.

According to this invention, instead of the chrome compounds and albuminous substances usually employed in pigment printing, the colloidal substances are made up of ferric, serium or uranium salts mixed with alkaline albuminates or acidic albumens (such as anhydrous casein) which are insoluble in water, but are soluble without alteration in solutions of neutral salts, alkalies or acids (such as ammonia, borax, sodium carbonate, etc.) and which can

again be precipitated from these solutions. The necessary pigment is added and the printing-paper coated with the mixture. Increased sensitiveness can be had by the addition of coloring-substances (metallic violet, etc.), and in this way the paper is sensitized for yellow and red rays. Upon exposing this paper to light through a negative the ferric or other salt decomposes in forming an insoluble oxide and the derivatives of albumens become less easily soluble in their ordinary solvents (ammonia, sodium carbonate, potassium oxalate), which are used as developers. Paper prepared thus is nearly as sensitive as chrome paper and keeps much longer.

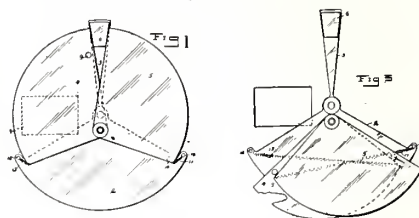
905,802. APPARATUS FOR THE PRODUCTION AND EXHIBITION OF COLORED PHOTOGRAPHS. CHARLES JULIUS DRAC, Warsaw, Russia.

An optical apparatus for producing a plurality of complementary negative images of an object and inversely for the optical synthesis of a projected image in natural colors from a plurality of complementary colorless positives, dispensing with colored media, comprising an optical system common to all the images and consisting of a double system of lenses separated by a highly dispersive analyzing set of prisms, an aperture-shutter in the front focal plane of the objective and three separate identical optical systems, each consisting of a lens, and a set of highly dispersive synthesizing prisms, each set having a symmetrical position to the analyzing set of prisms.

December 8, 1908

905,910. SAFETY SHUTTER FOR KENETOSCOPIES. HENRY NAYLOR, Jr., Kenilworth, D. C.

A device which automatically cuts off the projecting-light from the film whenever the speed of the machine drops below a certain predetermined rate, thus having a tendency

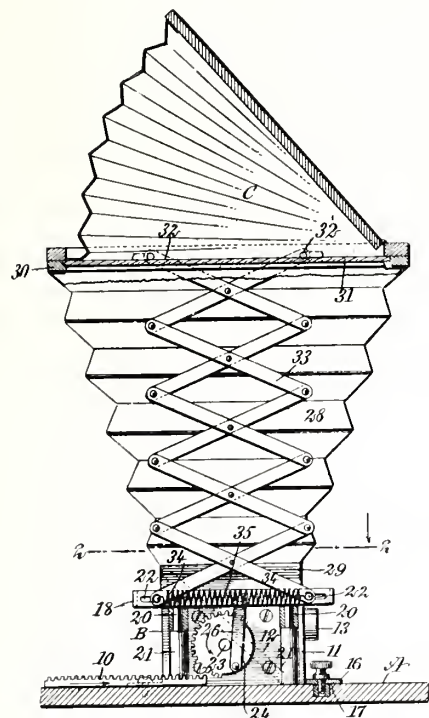


to regulate the speed of the hand-crank. The appliance may be attached to the usual revolving shutter, which is driven by the feeding-mechanism of the kinoscope, and which comprises a large sector 2 to cover the film when it is intermittently fed and a narrow sector 3 to flick across the film while at rest. Eccentrically mounted upon the larger sector are two auxiliary blades 4 and 5, large enough to fill the areas not covered by the shutter proper and form with it a complete opaque disk. In operation, the sectors 4 and 5 are thrown by centrifugal force behind the sector 2

as far as the stops 9 and 14 in opposition to the resistance of the springs 11 and 13 (Fig. 3), leaving the effective area of the shutter as it passes over the projection-aperture 8 the same as if the auxiliary blades did not exist. As the machine slows down the pull of the springs gradually overcomes the centrifugal force and the auxiliary blades are brought back against the counter-weight and stop 6 (Fig. 1), thus effectively cutting off the light.

906,222. CAMERA ATTACHMENT. E. L. HALL, New York City.

The attachment is an automatic, focusing finder which can be fitted to any type of camera. The figure shows it as attached to the drop-board of a folding camera; but, by



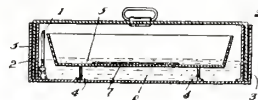
slight changes in the actuating-mechanism, it may be applied to the top of the lens-board or the camera-box, or to a focusing box-camera. In the box-body of the finder 11 is set a lens of the same focal length as the camera lens, or some definite fractional part of the same, and also a mirror 12, which reflects the image from the lens upward through the folding bellows 28 to the ground-glass 31, where it is viewed by the operator under the folding sight-hood C.

A skeleton rectangular frame 18 loosely surrounds the box-body 11 and carries attached four guide-rods 20 which extend down into sockets 21 and permit a vertical movement of the frame 18. Each side-bar of this frame is provided with a longitudinal slot 22 at each of its ends, and to these by means of pins are slidably connected the lazy-tongs 33 which support the bellows. The upper ends of

these tongs are connected to the frame 30 as shown. A spring 35 draws the lower ends of the lazy-tongs together and forces the bellows upward when released from any fastener provided. A shaft 23 extends through the body of the finder below the mirror 12 and is provided at one end with a pinion 24, which engages with the rack 10 and is provided at its opposite end with a circular disk. A link 26 connects the pinion 24 with the side-member of the frame 18, while at the other end of the shaft a corresponding link also connects the circular disk mentioned above with the adjacent side of frame 18. Now as the lens-board of the camera is carried outward or inward to obtain the proper focus, the rack 10 engages the pinion 24 and causes the bellows 28 to be raised or lowered, and when the proper focus has been obtained it will be found that the image is simultaneously focused on the ground-glass of the finder.

906,491. PHOTOGRAPHER'S APPARATUS. ZACHARIAH J. GOLD, Stella, Mo.

As is seen by the sectional drawing, the device consists of a telescopic, light-proof pan and cover which may be made of any suitable material. In the pan is placed cooling-water, and a thermometer 1, held by a tiny tripod, tells the temper-



ature at any time. Across the bottom of the pan are attached the bars 4, which do not touch the sides or obstruct the agitation of the water as the pan is rocked. On these bars the developing-tray rests, partially immersed. Such a device protects the plate and allows one to enter or leave the dark-room during development.

December 15, 1908

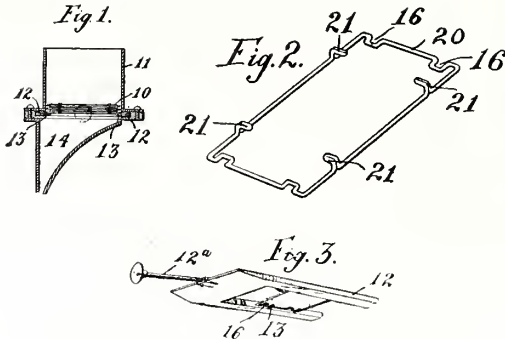
906,499. NON-CURLING ADHESIVE FOR MOUNTING PHOTOGRAPHS, ETC. NATHANIEL B. AUKERMAN, Ingram, Pa.

In this formula warping or cockling of the print and mount is overcome principally by the very low percentage of water contained, thus to a great extent obviating expansion when the adhesive is applied and contraction when it dries, and also preventing the moisture from distributing injurious chemicals to the print which will destroy the picture-image. The composition consists of glue, alcohol, nitric acid, dextrin, glycerine and perfume, and the resulting adhesive, because of its dry consistency, does not strike through either print or mount, but adheres to each, thereby forming a wall of protection between the two. This is particularly fortunate, since it will prevent sodium hyposulphite, used in the manufacture of many brands of mounts, from escaping to the print and fading it.

906,758. TEMPORARY CARRIER AND GRAVITAL FEED FOR PHOTOGRAPHS. PIERRE V. W. WELSH, Brooklyn, N. Y.

For the rapid exposure, development and fixation of a large number of prints mechanical methods are made use of, and the chief feature of this patent is a temporary wire paper-carrier. (Fig. 2.) This is provided with notches 16 and clips 21, into which a sheet of sensitive paper may be sprung and which will serve to hold it. Fig. 1 shows a form

of gravital feed which represents an improvement over Mr. Welsh's former patent No. 490,180. This device (Fig. 1) accommodates a pile of the paper-carriers 10, just described, in a hopper 11, where they are supported by a slide 12 (perspective view from below in Fig. 3), having an operating-handle 12a, and also a central opening into which laterally project pins 13, fastened one pair in each side-bar



of the slide. The piled plates or carriers 10 rest upon these pins and are allowed to fall gravitally one by one through the slide opening into the hopper 14, passing then toward a camera-lens, by simply giving the slide a direct lineal movement in one direction or the other to bring its pins 13 into line with the notches 16 of the lowermost paper-carrier.

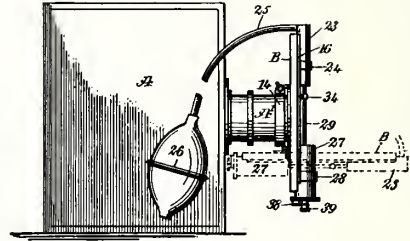
906,813. DEVICE FOR COLORING MOTION-PICTURES. CHARLES N. MARCEAU, Ogdensburg, N. Y.

Between the lamp-house and the film-mechanism of any cinematograph is fastened a simple metal structure carrying a vertically slidable frame in which are set three glasses of any desired color. This frame may be raised or lowered at the will of the operator by means of a hand-lever which, when released, automatically becomes fastened in the position it happens to be. By this means any one of three colors may be imparted to the picture as it is being projected.

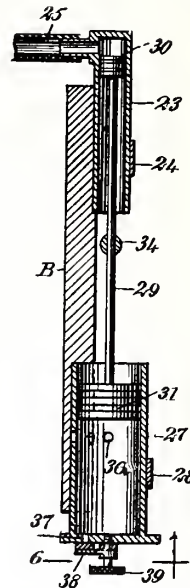
906,862. PHOTOGRAPHIC SHUTTER. HENRY A. BYERS, Pe Ell, Washington.

This specification describes improvements tending toward the simplification of a shutter patented Jan. 29, 1907, No. 842,522, the chief object of which was to vary the relative exposure of the landscape and sky portion of an outdoor picture, or, if desired, to give an exposure of uniform duration over all portions of the image. The mechanism is mounted on a board B, hinged so that during focusing it may be turned down to the position indicated by the dotted lines. The shutter itself consists of a slide with a narrow slit which passes downward from its normal closed position across the field of the lens. The slide is moved by the piston-rod 29, the two heads of which work in the cylinders 23 and 27, and is actuated by pressure upon the bulb 26, the shutter-slide being attached to the piston-rod at 34. The lower cylinder 27 is provided with a series of apertures 36 in the side of the cylinder and also another series 37 in the lower end, both series being provided with means for closing any or all of the apertures at will. In regulating the speed of the shutter in the exposure of the sky, the initial movement of the shutter will be slowest when all the apertures 36 are closed, and

will be increased in rapidity proportionately to the number of apertures uncovered. The same is true with relation to the turning movement of the shutter to expose the fore-



ground, the movement being slowest when all the apertures are closed, and proportionately faster according to the number of apertures uncovered. When the apertures 36 are closed and the large aperture of the series 37 is opened the



movement of the shutter is uniform throughout, and a rapid exposure is obtained. Any desired combination of speed can be arranged for with the means of regulation indicated.

907,037. FILM-HANDLING DEVICE. THOMAS S. GRAVES, Near Weston, Mo.

An improvement upon a device for developing cut-films, patent applied for Feb. 11, 1908, by means of which the films are placed in holders and suspended, several at a time, in the developer. In practice it has been found that the film is liable to curl while in the solution, and to prevent this the present invention provides for a rectangular frame of narrow metal strips attached to each film-holder, which is brought into contact with the edges of the film and which presses the back of the film firmly against the flat metal back of the film-holder next to it in the series. The construction permits the free flow of the developer.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings,
Exhibitions and Conventions are solicited for publication

MOVING-PICTURE REFORM

As a result of PHOTO-ERA's campaign against inferior moving-picture establishments — inaugurated in the October issue, 1908, and heartily supported by the pulpit and the daily press — Mayor McClellan, with highly commendable courage, revoked the licenses of five hundred and fifty of such houses operated in Greater New York. There were undoubtedly well-grounded objections to these cheap and demoralizing show-places, and a regard for the physical and moral welfare of the public demanded heroic measures. Unfortunately, the proprietors obtained an injunction restraining the execution of the mayor's order. Nevertheless, it is probable that only a portion of these degrading show-places will be reopened under the law.

H. SNOWDEN WARD'S LECTURES

THE course of lectures by Mr. Ward, delivered in America and announced in PHOTO-ERA several months ago, was begun early in December last. The third in the course, and the first near Boston, was delivered at the Fogg Art Museum, Harvard University, Cambridge, Mass., Dec. 11, 1908, before a large and appreciative audience. The subject was "Canterbury Pilgrimages," a scholarly and fascinating discourse based upon the life and martyrdom of Thomas à Becket. Mr. Ward proved himself an agreeable and finished speaker, and the numerous lantern-views, interspersing the lecture, were highly creditable to the skill of their author, Mrs. H. Snowden Ward. At the conclusion of the lecture Mr. Ward was accorded enthusiastic applause.

THE HINTON MEMORIAL FUND

THE camera clubs and individuals who so generously contributed to the PHOTO-ERA Hinton Memorial Fund will be glad to know that their names, together with the amounts of their contributions, were published in full in *The Amateur Photographer and Photographic News* of Dec. 1, 1908. Accompanying this acknowledgment was a letter from the widow of the great pictorialist, addressed to the members of the Hinton Memorial Fund, which is here appended:

"Dear Sirs: Will you allow me, through the medium of your paper, to express my heartfelt gratitude and thanks to Mr. Craigie and the committee, and all those who have contributed — and many so liberally responded — to the Memorial Fund started on my behalf. I feel deeply touched; and it is gratifying to know that my dear late husband's work was so appreciated. Many, many thanks. Yours faithfully,
LOUIE HINTON."

DEATH OF WILHELM KNAPP

Too late to notice in the January issue, which went to press December 5, we learned with profound regret of the death of Wilhelm Knapp, the famous publisher of the monthly *Das Atelier des Photographen*, and numerous standard works on photography, at Halle, Germany. His was a life well spent in the service of the art-science, as well as of the photographic profession of his country. In the exercise of his profession as publisher he recognized only one standard, one which was reflected in all his daily business and social relations — the highest. In the discharge of every duty and every obligation, public or private, the late Wilhelm Knapp displayed exemplary traits of character, such as won for him the highest respect and regard from all who had dealings with him, direct or otherwise. His death is sincerely to be deplored.

THE BOSTON CAMERA CLUB

WE regret that lack of space prevents an extended notice of the interesting exhibit of the South Orange Camera Club in the gallery of the Boston Camera Club, December 14-21. There were forty-four prints, indicating a high order of pictorial merit. Conspicuous in this respect were prints by E. L. Gould, J. L. Seiler, John Beeby and Geo. P. Swain.

QUEEN ALEXANDRA A SUCCESSFUL KODAKER

THE publication of Queen Alexandra's Christmas gift-book, "Photographs from my Camera," marks an event of unusual interest to every camerist. This unique book contains about one hundred and forty fine reproductions of photographs taken under exceptionally favorable auspices during cruises and journeyings in the most interesting parts of the old world. Her activity with the Kodak is extraordinary, for during one of her cruises in the Mediterranean she sent home nearly 1,500 films for development. She has been particularly successful in family groups; marine views; sailing-craft of every size and nationality; harbor scenes; views — exterior and interior — of the various palaces where she has dwelt, from time to time, including, especially, Amalienburg Palace, at Copenhagen, including the loyal crowds thronging the square. In the use of her camera — a No. 4 Kodak — the Queen has been quite unconventional, ignoring well-known rules of lighting, etc., and, hence, her results have been, in most cases, very striking and novel in effect. Much interest attaches to her book, aside from its unusual character, for the proceeds from its sale are devoted to charity, and the preparation

of the immense number of copies sold has given employment to hundreds; also, vast quantities of material have been consumed in the operation. It is doubtful that any book on photography has ever reached the popularity enjoyed by Queen Alexandra's gift-book, which not only has attained enormous sales in Europe, but is destined to become very popular in the United States, where the Queen's noble character has won for her millions of admirers. The sale of the book in this country will be controlled by the Eastman Kodak Co.

NOTES OF THE CAMERA CLUB NEW YORK

FRIDAY evening, November 6, the Interchange set of slides of the California Camera Club, illustrating the Yosemite Valley, recently made after the opening of a railroad to this noted locality, was shown. This set was followed by some of Dr. Ferd. Kneer's famous and exquisitely-colored slides of a variety of subjects, most notable of which were some of his remarkable flower-slides of orchids.

On Tuesday evening, November 10, a special meeting was held to consider a revision of the constitution as provided by a resolution passed last April. There was a large attendance, and a set of proposed by-laws was agreed upon which it is believed will form a satisfactory working-basis for the future welfare of the club.

Friday evening, November 13, Mr. Malcolm Stuart, a member, gave an instructive lecture on the Balkan States, including Servia, Bosnia, Herzegovina, Dalmatia and Montenegro, illustrated by very excellent slides from his own negatives. After the lecture the audience viewed the many fine photographs of the members' exhibit, which was kept on the walls of the gallery until January 1.

On Saturday afternoon, November 28, Mr. Montgomery, of the Eastman Kodak Co., gave a talk, from 4 to 6 P.M., on "All About Plates."

Saturday evening, December 5, Mr. Becker, of the Eastman Kodak Co., gave a demonstration and talk on "Carbon Sepia."

On Saturday P.M., December 12, Mr. Kidwell, of the Eastman Kodak Co., gave a demonstration and talk on "All About Velox."

On Friday evening, December 18, one hundred slides were shown from the collection of Mr. W. A. Fraser, including his justly-celebrated flower-studies and night-scenes. The same evening the club was also favored with an exhibition of Reflectoscope pictures, with a most charming and instructive talk on this subject by Dr. Holbrook Curtis.

All requests for cards of admission, and for copies of the booklet, illustrating the unexcelled and best-equipped camera club plant in the United States, should be addressed to the Secretary, 121 W. 68th St., New York City.



Customers will seek and find the neat and tidy studio and advertise it among their friends.

BOOK REVIEWS

ARTS AND CRAFTS IN THE MIDDLE AGES, by Julia de Wolf Addison. With numerous illustrations from rare, old prints and original photographs. 8vo. Cloth, decorative. Price, \$3.00. L. C. Page & Company, Boston.

It is seldom that a book-reviewer is called upon to pass judgment upon so meritorious a work as Mrs. Addison's latest literary production. Cultivated people of means are much interested in the present revival of arts and crafts, as is evidenced by the great popularity among art-lovers of modern reproductions of mediæval craft-work. It is pleasant, at least, to read about the arts and crafts of the middle ages — the workers in gold and silver, bronze and iron, wood and ivory, texture and embroidery, as well as jewelers, stone-cutters, etc. The story of these minor arts is graphically told by the author and reinforced by numerous illustrations of masterpieces of design and construction. We are thus privileged to learn something of the lives and creative skill of such masters as Quentin Matsys, Peter Vischer, Benvenuto Cellini and others of equal celebrity, as well as the times in which they lived. The volume furnishes much needed information, to the average art-lover, for the intelligent enjoyment of the mediæval art-treasures to be found in the art museums of the old and new world. The acquisition of knowledge regarding the history, geography and fine arts of the old world is now engaging the attention of the photographer contemplating a visit to Dresden next summer. This should be supplemented with information, delightfully and accurately presented in Mrs. Addison's "Arts and Crafts."

MERCK'S 1907 INDEX. Third Edition. 8vo. 472 pages. Price, \$5.00. Merck & Company, New York.

In presenting this work, the publishers, now among the largest manufacturing-chemists of the world, need but point to its title-page, which shows its wide scope and indicates its great value to the chemist, the pharmacist, the physician, the editor and the photographer. This page states that the volume is an encyclopedia of the chemicals and drugs used in chemistry, medicine and the arts, with their names and synonyms; source or origin; chemical nature and formulas; physical form, appearance and properties; melting and boiling-points; solubilities; specific gravities and methods of testing; physiological effects; therapeutic uses; modes of administration and application; ordinary and maximum doses; incompatibles; antidotes; special cautions; hints on keeping and handling, etc.

For those whose work is practical, not theoretical, this book is of far greater value than the ordinary chemical encyclopedia, because of its reduced size and the consequent ease of handling.

Unlike Beilstein, for instance, which includes all possible combinations, Merck's Index confines itself to the chemicals and drugs actually on the market, giving information regarding them which has been compiled from the most modern

authorities and verified in the Merck laboratories. This latest edition has been improved by the addition of the newest chemicals and by the substitution of the latest nomenclature. No prices are given, but the comparative values of all chemicals are shown by numbers which readily may be compared with a table of standards.

AMERICAN ANNUAL OF PHOTOGRAPHY, 1909, Edited by John A. Tennant. Price, paper, 75 cents; cloth, \$1.25. Tennant & Ward, New York. Sole sales agent, George Murphy, Inc., 57 E. Ninth St., New York City.

At the first cursory glance one feels that never in previous years has this ever-welcome volume created so pleasant an impression as does the present issue; and, as many good things improve with age, so a later and more careful perusal gives full assurance that the printing is better than hitherto, that the illustrations are of a higher order and that the articles are far more varied and helpful. Mr. Tennant is to be congratulated upon his success.

A large proportion of the many attractive reproductions are credited to well-known and successful present-day pictorialists, both amateur and professional. English and American work predominates, although Germany is represented by several characteristic portraits by R. Dührkoop.

Among the principal contributors to the letterpress may be mentioned such men as H. Snowden Ward, Alfred Watkins, C. E. Kenneth Mees, A. Lockett, Alexander Mackie, John H. Gear, A. Radclyffe Dugmore, Dr. H. D'Arcy Power, C. H. Claudy, Charles E. Fairman, Dr. Malcolm D. Miller, William Findlay and others too numerous to mention. A wide range of subjects has been treated by these distinguished gentlemen, and the practical nature of the information recorded makes the book of great value, aside from its pictorial attraction.

HIGHWAYS AND BYWAYS OF THE PACIFIC COAST, by Clifton Johnson. Crown 8vo. Cloth. 323 pages, 63 illustrations. Price, \$2.00 net. The Macmillan Company, New York.

In "The Pacific Coast" another noteworthy addition has been made to the "American Highways and Byways Series." Like its predecessors, its chief topic is country life, especially the typical and the picturesque. In his trip from the borders of Mexico to the edge of Canada the author has avoided cities, for the most part, and has got into close and intimate touch with the people he found around villages, hotels and in rural homes. Many are the voluble local characters he has brought into his narrative who, by their unusual experiences, and oftentimes droll humor, tell more of the actual life and character of the people than any description, however illuminative. Famous regions also were visited, such as the Grand Canyon of the Arizona, the Santa Barbara Mission, the Yosemite, the Golden Gate, the Shoshone Falls and many

others. In every case Mr. Johnson's description of the scenery, fauna and flora is admirably graphic, and the fund of practical information which he has provided for those who are planning pleasure-tours to these grand and interesting localities will enable them easily to determine what they wish to see and how best to do so. The many photographic illustrations are quite in keeping with the nature of the book, being largely pure genre and giving an excellent idea of rural life on the coast; but one cannot help wishing that an equally good pictorial idea of the wonderful natural scenery had been conveyed.

THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC for 1909. Edited by George E. Brown, F. I. C. Publishers, Henry Greenwood & Co., 24 Wellington St., London, England. Price, paper, 50 cents, postage, 27 cents; cloth, \$1.00, postage, 37 cents. 1,336 pages. Sole American Agents: George Murphy, Inc., 57 East 9th St., New York, N. Y.

Once more this bulky volume comes to us with its rich store of information for the photographer, the dealer and the manufacturer. Without doubt this work, now in its forty-eighth year of publication, is the most popular book on our art, and the world's standard photographic guide. It is justly so, for none contains such a wealth of practical material. The usual well-known features are continued this year, and better indexes are provided for ready reference. Particularly worthy of careful reading is the "Epitome of Progress," in which the advances in photography during the past year are shown by quotations from the various journals. In this department we are pleased to see excerpts from PHOTO-ERA credited to such men as William Findlay, Dr. George H. Scheer and A. J. Jarman. The present status of the reflex camera, and its use, are ably treated by the editor, George E. Brown, F. I. C., and all the recent novelties in apparatus are given adequate description. As usual, the volume contains formulæ for the principal photographic processes, chemical and optical tables, and a large amount of other miscellaneous information. Altogether, it is indispensable to the library of every live camera-user.

KOLLOIDCHEMIE UND PHOTOGRAPHIE, von Dr. Lüppo-Cramer. Dresden, Verlag von Theodor Steinkopff, 1908. 8vo. Price, 5 Marks; cloth, 5.80 Marks.

The scientific aspect of photography does not appear to engage the attention of practitioners as formerly. The reason for this is, doubtless, the supremacy of the commercial spirit among professionals, due to keenness in competition; and activity exclusively in favor of pictorial progress among amateur workers. Under such conditions interest in ultra-technical matters naturally lags. Yet an acquaintance with the principles underlying the action of light upon the silver-haloids or the formation of the visible

image will enable the operator to work more intelligently and successfully. The lack of theoretical knowledge even among amateurs with ample time on their hands is astounding. A proof of this is the letters the editors receive constantly. To our German-reading friends we earnestly recommend the treatise on the chemistry of Colloids by Dr. Lüppo-Cramer, who has handled the subject with masterly skill.

LA REVUE DE PHOTOGRAPHIE — PUBLICATION ANNUELLE ILLUSTRÉE. Sixième Année, 1908. Comité de Rédaction: P. Bourgeois, M. Bucquet, R. Demachy, E. Mathieu, C. Puyo et E. Wallon. Paris: Photo-Club de Paris, 44 rue des Mathurins. Prix du Volume: 12 francs.

The edition of the sixth year of *The Photographic Review*, published under the auspices of the leading camera club in France, and edited by six of its leading members, is a sumptuous and attractive production. The size of the volume is 9 x 11 inches. The text contains chapters on photographic activity in England, United States and Italy by George Davison, Yarnall Abbott and le comte de Ludovico de Courten respectively, who have treated their subjects with signal ability. The exhaustive paper on scientific developments in photography during 1907 by Dr. G. H. Niewenglowski is of absorbing interest. The same authority contributes a valuable article on color-photography by chromatic dispersion. The oil-process, in its several phases, is discussed by Frédéric Dillaye and R. Demachy, and other important subjects are treated by experts equally well known.

The pictorial feature of the work is most engaging. Distributed throughout the text are innumerable excellent reproductions of prints by the most noted European workers, those of France and Belgium predominating. There are also thirty-six half-tone prints, tastefully mounted, in the form of full-page inserts, representing the pictorial ability of Mmes. G. Käsebier and A. G. Barton, Miss A. Warburg, P. Bergon, C. Puyo, G. Besson, R. Demachy, E. Frechon, A. Gili- bert, R. Le Bègue, A. Leroux, Vicomte de Singly, L. Misonne, R. Michau, A. Keighley, Baron de Meyer, W. Küheler, E. Lichtenberg, Guido Rey and E. J. Steichen.

THREE WEEKS IN HOLLAND AND BELGIUM, by John U. Higinbotham. Illustrated from numerous photographs. 8vo. Cloth. Price, \$1.50. The Reilly & Britton Co., Chicago.

If the stirring history of the Netherlands together with its unique topography are not sufficient to arouse the sympathetic interest of the American photographer, the story of Rembrandt and Franz Hals, with their pictures, surely will. The camerist who contemplates a visit to continental Europe next year will undoubtedly arrange his itinerary so as to include a visit to The Hague, Haarlem and Amsterdam, where may be seen the masterpieces of the great Dutch artists. The author of "Three Weeks in Hol-

land and Belgium" alludes but briefly to the contents of the art-museums of these two adjoining countries, but conveys rather his impressions of the country, in general. He describes scenes which will be sure to engage the skill of the visiting camerists. He has seen things with a clear vision and intelligent understanding, while his kodak-pictures evidence rare industry and discrimination. Historical data are introduced judiciously, being welcome and never a bore. His style is informal and direct, clear as well as humorous, and entertaining to the end. As an intelligent preparation for a brief trip through a section of Europe teeming with historical associations, architectural beauty and works of art, the volume by Mr. Higinbotham cannot be too highly recommended.

PHOTOGRAPHY FOR YOUNG PEOPLE, by Tudor Jenks. 12mo. Cloth. Price, \$1.50. Illustrated. Frederick A. Stokes Co., New York.

Still they come, in never-ending procession — handbooks on photography. The latest of this sort is by Tudor Jenks, and, in all truth, it is an excellent book. The author is master of his subject, which he has treated in a simple and straightforward fashion, from start to finish. His chapter on photographic chemistry is singularly explicit and would delight any boy or girl. The question of shutters has been treated very gingerly, strange to state. If a camera provided with a focal-plane shutter can be used so that the slit travels with the motion of the object, and the speed be commensurate with the requirement, the resultant picture will be free from distortion or blur.

The author explains, also, the various devices by which tricks and fakes are accomplished, so that the element of fun is joined to that of seriousness. The illustrations are numerous and admirably fulfil their mission. Other handbooks may emphasize more strongly the æsthetic side of photography, but none imparts to the novice a clearer understanding of the principles of the art, as well as the various kinds of apparatus and their intelligent application, in so pleasing and convincing a manner.

ANLEITUNG ZUR PHOTOGRAPHIE. Herausgegeben von G. Pizzighelli. Preis, Marks 4.50. Halle a S., Verlag von Wilhelm Knapp. 1908.

This is the thirteenth enlarged and improved edition of a standard handbook to photography, the author's name and that of the publisher being a guaranty of its supreme excellence. The book is complete — up to date, including valuable chapters on Autochromes and pictorial photography of the advanced school, the latter being illustrated with twenty-four full-page cuts of prints by eminent European and American workers. Every desirable piece of apparatus is described and illustrated, and all technical manipulations presented with exceptional clearness. The work appeals forcibly to workers familiar with German, to whom we recommend it most heartily.

NEBRASKA PHOTOGRAPHERS' ASSOCIATION

THE next annual convention of this organization is to be held from October 12 to 15, 1909, in Lincoln, Neb. Plans have been formulated at a recent meeting of the Executive Committee which make for a very successful convention.

WITH PHOTO-ERA'S FRIENDS

A PROMINENT manufacturer of photographic paper, himself a well-known pictorialist, although not an advertiser in PHOTO-ERA, was prompted to compliment the editor as follows: "PHOTO-ERA is a wonderfully fine Journal, capably edited, beautifully illustrated and, altogether, a meritorious work, and must succeed."

Another of several hundreds of similar and unsolicited opinions of PHOTO-ERA is as follows:

"HORNELL, N. Y., July 27, 1908.

To the Editors of PHOTO-ERA, Boston, Mass.

Gentlemen:

Your photographic publication — PHOTO-ERA — is always fine, but I cannot pass over your August number without exclaiming, 'Bravo! gentlemen.'

Faithfully yours,
F. E. BRONSON."

HOW A TROUT STRIKES

TROUT strike the fly from the water side of the lure. This question, which has been the subject of discussions and arguments among skilled fishermen since the days of Izaak Walton, has been settled for all time. W. H. Durham, of Los Angeles, while hunting game-fish with a camera on Blue Lake, near the Snake River, east of Spokane, succeeded in photographing a trout rising to bread-crumbs thrown on the water. The negative proves that the trout strikes its food from behind, not from underneath, as was the popular theory.

The photograph is declared by experts to be the most remarkable of wild-life ever made. It shows the fish as through a thin film of glass, but perfect in outline, defining the spots and markings.

NO QUESTION ABOUT IT

PHOTO-ERA, Boston, Mass.

Gentlemen: In your "Notes and News" section of the October issue, I notice you are having a little fun regarding the paper on which my "Princess" — a dog's head — is printed.

The reply of the chemical expert referred to is very good, and caused considerable amusement, but I think the Chicago agent of the firm on whose paper the print was made goes him one better.

Upon reading the paragraph he promptly replied that he was surprised that the gentleman did not at once discover that it was a "Dog on Good Paper!"

With kind regards, I remain,

Yours very truly,

PAUL WIERUM.

YOUTH'S COMPANION CALENDAR

THE publishers of *The Youth's Companion* have issued a very attractive calendar for 1909 in the form of a long, upright panel, measuring 9½" x 34". Most of the space is occupied by a beautiful picture by Charles C. Curran, entitled, "In Grandmother's Garden," faithfully reproduced from the original painting, forming a very handsome ornament. The calendar is copyrighted, and will be mailed, securely wrapped, to all who pay their subscriptions to *The Youth's Companion* for 1909.

THE TRIUMPHANT STEREOGRAPH

ONE of the remarkable, fascinating and valuable photographic discoveries is the stereoscopic picture. Many of us can remember the superbly-executed productions of this kind made about thirty years ago. Like many an admirable deal the thing was overdone and rapidly depreciated, almost dying out at the time when worthless, sham, stereoscopic views were hawked about at \$.25 a dozen! Fortunately, stereoscopic photography was kept alive by several societies in Europe. Several years ago the manufacture of high-class views was revived by an American firm, the H. C. White Co., of North Bennington, Vt., which placed upon the market the most superb series of "stereographs" that has ever been seen. The firm's catalog covers every country and every clime, also about every subject of an educational character conceivable.

There is a plethora of books, lectures and entertainments on travel; yet, a collection of White's matchless "stereographs," seen through a White stereoscope, excels them all for beauty and accuracy of presentation, as well as ease and convenience of enjoyment. We trust that every one interested in this delightful phase of photography will send, at once, a postal to the above-named firm for a copy of *The Modern Aladdin*, an uniquely artistic publication. It is a revelation of things beautiful and interesting.

GREAT ART-GALLERIES

THE latest addition to the series of little books illustrating the pictorial wealth of the great art-galleries of Europe, and published by H. M. Caldwell Co., Boston and New York, is "The Glasgow Gallery." The pictures — there is no text — consist of about eighty excellent reproductions, in sepia. These books fill their mission admirably, and are, moreover, wonderfully cheap, \$.35 for each volume. The first four books of this series were reviewed in PHOTO-ERA for December, 1907.

REPRESENTATIVES OF PHOTO-ERA

THE publisher begs to state that there are no advertising-representatives of PHOTO-ERA magazine except its editors. All persons making any such claim should be promptly discredited. Any person entitled to transact business, directly or indirectly, for this magazine will be provided with suitable credentials, properly signed and dated by the publisher, Wilfred A. French, which can be shown when called for.

WITH THE TRADE

A REMARKABLE PICTURE

DURING the past summer a very attractive collection of pictures has been exhibited in our various centers by the Bausch & Lomb Optical Co. of Rochester, N. Y. Perhaps the subject of greatest interest was "The Bleachers"—a 40 x 50 enlargement from an 8 x 10 negative which was made with a Bausch & Lomb-Zeiss Tessar Series IIb, 14 $\frac{3}{4}$ " equivalent focus. The attributes which have made this picture well worthy of attention are the covering-power of the lens, the perfect definition, the even quality of the entire negative—all made more wonderful considering that the aperture used was f/6.3.

"The Bleachers" has attracted so much attention that the Bausch & Lomb Optical Co. decided upon a wider distribution. Two hundred of these framed enlargements are being sent out to dealers in the various parts of the country, in order that as many as possible may see this picture. A contact print accompanies each enlargement, to show how little definition is lost even with great magnification. If you have not seen this group of "Fans" you should make an effort to do so.



The amateur of to-day is the professional of to-morrow.



A NEW PHOTOGRAPHIC INDUSTRY

ON January 1, Frank R. Wyckoff, treasurer and general manager of Ansco Company, Binghamton, N. Y., severed his connection with that well-known firm, and his duties were assumed by George W. Topliff, vice-president of the concern. Mr. Wyckoff advises us that his resignation was occasioned by the fact that he will, in the very near future, head a new photographic industry to be known as Bingham Company, which will manufacture photographic goods in Binghamton on an extensive scale. The exact nature of the output has not been announced, but, in all probability, it will be similar to that of Ansco Company. Nothing is further from the intention of the new concern than to disturb the business of its older competitor, except in so far as fair methods of competition may effect it; and although the concern Mr. Wyckoff has been serving would be glad to have him remain, it realizes that every man must make the most of the opportunities life presents. Mr. Wyckoff has had a very successful business career, and it is largely due to his efforts and enthusiasm that the business of Ansco Company has had its greatest expansion during the recent trying business depression.

A LIBRARY OF PHOTOGRAPHY

THE publication of the Self-Instructing Library of Practical Photography, advertised in the photographic press for some time past, and awaited by the workers in this country with no small degree of interest, is now an accomplished fact. The first five of the eight volumes constituting this important work have come to hand and seem to fulfil the promises made by the publisher, the American School of Art and Photography, Scranton, Penn. The books, large octavo, are profusely illustrated and substantially bound in boards, with leather backs. We regret that lack of space compels us to defer a review till the next issue of PHOTO-ERA. The most popular phases of photography are treated, and are distributed among the five volumes as follows: Volume I, Elementary Photography Complete; Volume II, Negative-Developing—After-Manipulation; Volume III, General Exterior Photography—Composition—Lenses; Volume IV, Photographic Printing, Complete; Volume V, At Home Portraiture—Flashlight-Interiors—Copying—Enlarging—Lantern-Slides.

THE DEFENDER TIPSTER

THIS neat booklet is intended for the consumer of the Defender products. It gives, clearly and briefly, size, character and price of each class of these popular goods, together with working-directions, formulae and suggestions—"Tips"—enabling the consumer to attain the best results with certainty, ease and economy. This price-list is confined to paper, dry-plates and chemicals made by the Defender Photo-Supply Co., Rochester, N. Y.

A GOOD INVESTMENT

THE photographer—professional and amateur—cannot invest fifty cents to better advantage than in Wellcome's Photographic Exposure-Record and Diary for 1909. The many practical features it offers are too numerous to mention, but include Wellcome's Simple and Reliable Exposure-Calculator—operated by one turn of the scale; all the advantages of a first-class diary and memorandum-book in recording data and exposures of all kinds; tables of exposures for interiors; telephotography, copying and enlarging, moving-objects, night photography, etc.; speed-tests for over eighty bromide papers and lantern-slides; practical, up-to-date information of accuracy and authority, etc. A copy of the Diary will be mailed, promptly, on receipt of fifty cents, post-paid, by the publisher of PHOTO-ERA.



Be sure of your light, then go ahead.

PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXII

MARCH, 1909

No. 3

PUBLISHED MONTHLY BY WILFRED A. FRENCH, 383 BOYLSTON STREET, BOSTON
Entered as Second-Class Matter, June 30, 1908, at the Post-Office at Boston, under the act of March 3, 1879

YEARLY SUBSCRIPTION-RATES

United States and Mexico, \$1.50. Canadian postage, 35 | Foreign, \$2.25. Single copies, 20 cents each. *Always*
cents extra. Single copies, 15 cents each *payable in advance*

ADVERTISING-RATES ON APPLICATION

WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our careful consideration. While not accepting responsibility for unrequested contributions, we will endeavor to return them if not available, provided return postage is enclosed.

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J. H. GARO
BERTHA CUSHING CHILD



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The Case Against the Moving-Picture

C. H. CLAUDY

WHEN PHOTO-ERA took up the subject of moving-pictures, and asked me to write a story on the degradation of the shows — some of them — daily, almost hourly, given in the Nickelodeons all over the country, and later had Mr. Haines write his most interesting article on the technical side of the question, it doubtless expected that some one would sit up and take notice. But it seems to have done more than that. Judging by the vigorous protests from one quarter, and from other quarters equally vigorous commendation, the subject is popular, and the articles in question touched some one's sore elbow!

The Moving-Picture News, official organ for the moving-picture industry, had something to say about the matter which is more illuminating for what it does n't say than for what it does. I quote it in full:

"The PHOTO-ERA, of Boston, in its last two issues has been trying to give the moving-picture industry a black eye. Whether it has succeeded or not is an open question, but there is no doubt it has tried to make out a very good case against the indecent film. It is not the present-day film so much that would cause C. H. Claudy and Robert Thorn Haines to write so strongly. They must have seen some of the old issues which were very much open to question. We believe that, to a very large extent, the manufacturers are sincerely trying to eliminate anything that has a tendency to offend the people of Nickelodia, and we feel sure that in the near future such scathing attacks will not be in order, but that the industry will be lifted to a higher plane which will be of benefit both intellectually and educationally to the public.

"C. H. Claudy is one of the best-known writers on matters photographic, and Robert Thorn Haines is one of the greatest living authorities on moving-pictures, being an inventor of moving-picture machines and stereoscopic cinematography, and anything emanating from their pens will have a world-wide quotation."

In the first place, nothing could have been further from the intentions of PHOTO-ERA, of Mr. French, its editor and publisher, or of myself — and I am

sure, also, of Mr. Haines — than the giving of a “black eye” to the moving-picture industry when that industry is what it should be. If you are in a railroad wreck and sue the company and rush into print with a vigorous denunciation of the management and the alleged carelessness of the switchman, etc., you are neither indulging in a tirade against railroads nor trying, by law, to give them a “black eye”— you are doing your eye-blackening on one particular railroad, and have no quarrel with the rest of them.

No one, PHOTO-ERA and its contributors least of all, wants to hurt the legitimate moving-picture industry in the least. It is when it is conducted in such a manner that it panders to low taste, makes for crime and vice, and is a loafing-place for young people of such tender years that anything impressive is taken as true, no matter how false it may actually be, that we want to get in the ring with our fists and black up the eyes, and knock down, too, if we can, those who make money by such means.

Collier's Weekly recently got after certain manufacturers of gin who published labels on their bottles calculated to incite negroes to criminal assaults on white women. They sold the gin, the negroes assaulted white women and were hanged and burned for their crimes. When *Collier's* got after these people they were accused of many crimes, among which was that of “officiously meddling with legitimate business for the sake of an advertising-crusade.” That the laws of the specified locality were speedily modified and the offensive labels suppressed seems to prove this “officiousness” was a very necessary and creditable piece of work.

PHOTO-ERA will tell you, if you ask it, that it has the highest regard for the possibilities of the motion-picture and nothing but praise for good ones; but it believes the other kind should be suppressed; and so do I; and so, I believe, does Mr. Haines.

The Moving-Picture News seems to think we have been visiting in the backwoods. Now if I had confined my visits to one city, and that one my own, I might admit it, for the sake of argument, even though I don't think Washington exactly the rear of the forest. But I have “Nickelodeoned” in Philadelphia, New York and Rochester, Baltimore, Boston, and in smaller towns, and there is a lamentably large proportion of disgusting film shown in all the cities and towns, albeit in all there are some first-class houses where nothing of the kind is to be seen.

I went to one show, recently, and saw a certain film. I had the curiosity to inquire if it was recent and new, or old and worn out. I was indignantly told it was very, very new — just received — they did n't have old film. It depicted the vacation of a husband. He packs his bag — in about three seconds — says good-by to his wife in a snap-shot, and flies for his train. On the train he makes friends with a girl, and kisses her as he goes through a tunnel. Then a letter to his wife is thrown on the screen in which he expresses his disgust with his stupid and uneventful journey. He goes to the theater in the town of his destination, flirts with a chorus girl, takes her to supper, and the film ends as he takes her on

his lap and has a vigorous kissing-match with her. Ugh! Following this is another letter to the deceived wife, who is told what a stupid time he is having, and how anxious he is to get home. Next a bar-room scene, in which Hubby drinks, is robbed, fights and is haled to the police station, where his wife finds him, and where he makes up with her in a most touching manner, with winks at the audience on the side.

Harmless? Possibly, to you or to me. We have reached reasonable years of discretion; we know what society thinks of this class of man; and we recognize that while humans are humans vice will be vice. But what of its effect on the two callow youths who sat in front of me, with the two girls of fifteen or thereabouts who sat with them? What perspective had *they* on life to judge the true from the false? The audience laughed heartily at the deceived wife, and at the antics of her husband, and at the readiness with which he was able to make all right with her again. Is this the sort of moral teaching to produce good men and women?

In another house I saw a film in which the most brutal treatment was handed out to an old man; another film showed a dog with a tin can tied to his tail and a chase after it; still a third show had some more blood and thunder, detective, murder, battle, and sudden-death films to show, in which men were shot and woman abducted and, presumably, mistreated with the utmost abandon. In every such house to which I went I found a large proportion of very young men and women. The moving-picture of this sort is nothing less than a very live dime-novel in short and condensed, but very spicy, form. What we take in through the eye from a picture has a much more powerful effect on the mind than what we take in from print and have to use as the basis on which to build an imperfect mental picture. If a dime-novel can do any lad or girl harm, it is perfectly obvious, without further argument, that the same dime-novel acted out — and acted out well, at that — and thrown on the screen with the accompaniments of a crowd evidently enjoying the performance, dim lights, and music — of sorts — to add to the effect, is going to do more harm.

It will not do for the Nickelodeon people to say that the public demands this kind of film. It does n't do a publisher any good to say that the public wants indecent books. The Post-Office won't let him use the mails for them. When a review of a book is published which hints at the risqué the publishers rejoice — some of them at least — knowing it means a sale of a large number of copies. The moving-picture people know that the more dramatic, the more true to that side of life of which the average person but hears and never sees, he can get his film, the more packed houses he will get. But most books sold are not risqué books, most plays seen at the theater are not risqué plays, and most moving-picture shows could entirely cut out dime-novel or indecent film and have plenty of people glad to pay their money to sit through the performance.

I should like to record one show that I saw as an incident of this kind. There was a long film giving the adventures of some ancient Spanish gentleman, who went after the gold hidden by a miser and fought for it, and came back and



HARRIET LYNAM

IN THE FOG

claimed his lady's hand in marriage; a cameraphone picture of a lad and lass singing by the side of a stream, and an alleged humorous picture in which a soldier makes love to a nurse-maid and an old professor trying to catch a butterfly stumbles on them and is thrown in a stream for his pains.

The first was innocuous. It was so obviously painted scenery and costumes which were before you that I doubt even the most innocent ten-year-old would have thought it real life. Moreover, the story was well told, and the fight was the fight of the single-handed and the virtuous against odds and brutal thieves; so the moral, despite the bloodshed, was good. The cameraphone performance was wholly harmless and rather pleasant; and the last film, vulgar and loud as it was, and with humor of the horse-play variety, was with no hidden point of poison in it. The love-making was innocent and open, and obviously only incidental, and the old man who was so unfortunate was not injured by his fall.

Now here was a show which was crowded — the Lord in his wisdom knows



MRS. W. W. PEARCE

"PEEK-A-BOO"

why, but it was — showing evidently to any one that it does n't require blood and thunder and vice to attract the crowd.

I would like to say emphatically that I am not setting myself up as a prophet of the moral law. I have yet to see anything in a motion-picture show which would do a grown man or woman any harm besides that of possibly degrading the taste. I don't suppose any normal human being is the worse for reading the Old Testament, "The Rape of Lucrece," "Mademoiselle de Maupin" or "Three Weeks;" yet I would not give any of them freely into the hands of Fourteen to read. I go frequently to a good vaudeville house, and I notice that most of the audience stays for the pictures after the regular performance, and I never have seen any film at this house other than of travel, wonderful magic, humor or current events.

I think even the editor of *The Moving-Picture News* must recognize that in his temperate remarks and his "believe that the manufacturers are, to a very large extent, trying to eliminate," etc., he has shown that he acknowledges the corn. He, and you and I ought to be able to *know* that manufacturers will not make and sell such film, and that if they must make it and sell it, local regulations should forbid such shows to be open to the young. If a barkeeper gives a lad of twenty a glass of beer he is hardly treated, in some cities — "boy under age." I would ten times rather have my son go to a bar-room at sixteen and have a glass of beer than to some of the moving-picture shows I have seen. I would

rather give him such books as Boccaccio's "Decameron" or the unexpurgated "Arabian Nights," and let him read them and have them explained, than I would many a dime-novel that I have seen. In the one he would get real life of certain periods — no matter of how low an order; in the other, merely a distorted view and a poor perspective. If possible, I should keep both from him when he is young; but if he had to have one or the other, my choice would be as stated.

It seems to me that, regardless of what *The Moving-Picture News* has kindly said about my being so well known, and that whatever I may write and whatever Mr. Haines may write on this subject will have a world-wide quotation, and therefore, presumably, authority, the strongest thing I can say does not rest on any possible photographic knowledge or reputation as a writer on photographic topics, but on what I may say as a parent. If I, who am the father of a boy, can truthfully and sincerely say that, with the exception of the moving-pictures given in good vaudeville houses, and church entertainments and such, I have never seen the moving-picture show I should care to have him witness before he is enough of a man to know the true from the false, I have uttered the harshest criticism which can be spoken of the film which is commonly shown to-day.

That there is good film and plenty of it; education film and miles of it; trick film, harmlessly entertaining, by the barrel, and funny film, until there is no rest, by the carload, I do not attempt to deny. But until I can find a show which shows these and only these, or others like them, which eschews the "canned melodrama" of vicious tendencies, I am going to stay away, myself, as far as my pleasure is concerned, and I am going to keep my family away. This is about on the par with the man who said he wished to "stop the paper" when he cut off his subscription; but it is the only form of individual protest against unsatisfactory conditions which can be effective. If every other parent in every city of the country felt the same way there would soon be a change!

Mayor McClellan had the courage of his convictions when he closed up five hundred and fifty moving-picture shows in New York City, because of protests against the majority of them by press, pulpit and layman alike. If the guardians of the public morals — Comstock, the much maligned, who has done so much that is good, even while he did so much that was foolish; the Watch and Ward Societies; the Rescue Missions, etc.— will do their part and do it quickly, the moving-picture people will soon come to see that it is not only good citizenship, but good business, to get rid of the vulgar, the loose-moraled and the uncivilizing film they so often show, and present only what is interesting and, perhaps, what is exciting, without what is harmful, to their audiences.

Let *The Moving-Picture News* give another paragraph to this matter — let the editor come out good and strong against film which has most of the dime-novel tendencies, and I can assure him that, so far from wishing it or the business a black eye, it will have no better supporter than myself. I am sure PHOTO-ERA will say the same, and I would wager on Mr. Haines.



SOLITUDE

HERMANN LINCK

Sulphur and Permanence

R. CHILD BAYLEY

AMATEUR photographers are apt to look upon the permanence of their prints as an important quality. In a year or two they may not care whether the prints they make to-day have faded or not; but at present they represent the high-water mark of their photographic skill, and it is only natural that they wish that evidence of their ability to be lasting. How to make it so is, therefore, the perpetual problem.

The great enemy of the silver print is sulphur. By silver print, for the moment, is meant a print on P. O. P. (gelatino or collodio-chloride), bromide, gaslight, or plain salted paper. In all of these the finished image contains silver, if it does not consist wholly of that metal. In the case of a properly-finished bromide or gaslight print the image should be one of plain, finely-divided metallic silver. In the case of prints on salted paper or on printing-out papers it should consist of metallic silver combined with more or less of metallic gold or platinum, or whatever metal has been applied in the toning-process. Sulphur slowly attacks silver, and the fine state of division of the metal in a photograph makes it far more susceptible to the action of sulphur than a solid block of the silver would be.

The photographer may wonder whence the sulphur is to come that is going to cause his print to fade. There are two chief sources for it. One is the paper of the print itself; the other, the atmosphere. Hypo contains sulphur; and however carefully the print may be fixed and washed, there may remain traces of salts containing sulphur in the film of the picture or in the fiber of the paper. Then, again, hypo is used in the manufacture of some papers and cards; and, although the paper of the print itself is sure not to contain any, the paper or board on which the print is mounted, unless made for photographic purposes by a reliable firm, may contain hypo. Even the picture itself may contain sulphur, as we shall see subsequently.

Hypo, so long as it remains hypo, has probably very little effect on the permanence of the silver print. It should be thoroughly washed out of the print, as far as washing can remove it, of course; but it only becomes actively harmful when it has undergone decomposition. Acids decompose hypo almost at once, forming compounds which are most harmful to the print. It is for this reason that it is so important that the mountants used for photographs shall contain no acid. It is not that the acid itself is injurious — it may or may not be — but it tends to convert any hypo left in the print to an actively injurious salt. For the same reason, when platinum toning-solutions, which are generally acid in character, are used it is important to wash the prints between toning and fixing, and to add a little bicarbonate of soda to the hypo, so as to neutralize any traces of acid there may be in the print, and so prevent this action from taking place.

The combined toning and fixing-bath has a very bad reputation as far as the permanence of prints toned in it is concerned. Some prints toned in combined

baths have remained unaltered for many years, showing that in some circumstances the combined bath may be quite harmless; but there is no doubt that in a great many cases prints toned in a combined toning and fixing-bath have faded. This is due, beyond all doubt, to the sulphur introduced into the print in the combined bath. There is a very curious thing about some of the compounds of silver and sulphur in a gelatine film. The color of the picture they produce so closely resembles the color produced by gold-toning properly carried out that the photographer may be misled into thinking that his toning-bath is depositing gold on the print, when actually it is sulphurizing it and sowing the seeds of speedy fading. Two prints may be toned in the same bath, and one may have a proper deposit of gold upon it, increasing its chances of permanence, the other may contain at the finish no gold at all, its rich color being due simply to compounds of silver and sulphur.

It is important, therefore, when using a combined bath to take care that it is gold and not sulphur-toning which is taking place with it. The only way of doing this is by noting how many prints are toned in the bath and how much gold was put into it, taking fresh solution before there is any chance of all the gold in the bath being exhausted. Two grains of gold should be allowed to each full-size sheet of paper. There is another danger from the improper use of the combined bath. As the prints are taken out as soon as the right color is obtained, it may happen, if the bath has not been properly made up, that they are toned before they are fully fixed. In such a case the prints ultimately will develop discolorations of a patchy, irregular character. These are avoided by keeping carefully to the maker's formulæ. But the combined bath is better avoided altogether by those who lay any stress on permanence.

It may seem strange that while so much is said about the injurious action of sulphur, it is nevertheless a fact that bromide and gaslight prints are deliberately toned with sulphur, and the prints so toned enjoy a good reputation for permanence. A little explanation seems to be necessary. It is, briefly, this. The compound known as silver sulphide is that which is formed in these orthodox processes of sulphur toning, when they are properly carried out. Silver sulphide is a brown substance; the whole of the silver forming the picture is converted into silver sulphide, and the image accordingly is changed from black to sepia. This silver sulphide is an extremely permanent substance; probably it is far less likely to alter than silver itself; so that the sulphur-toned bromide or gaslight print is actually more permanent after toning than before. Sulphur has already done its worst on the image; what sulphur the print contains is firmly combined with the silver, and a permanent print is the result.

The silver print which fades owing to the presence of sulphur is in a different category. The sulphur does not simply convert the image into silver sulphide, as in sulphur-toning, but into an extremely unstable body called silver sub-sulphide, and into complex compounds of silver, sulphur and gelatine. These in their turn undergo further changes, and the print gradually fades in the way only too well known.



GEORGE VIEWEGER

NIAGARA FALLS

The question is sometimes asked whether this or that paper gives a permanent print. It is hardly a matter of make of paper at all, but of the treatment it receives at the hands of the photographer. Now that the reasons for the fading have been given, it should be comparatively easy to take care that it shall be circumvented.

To ensure as far as possible that a silver print should be permanent, we must attend to the following points:

(1) The toning must be with gold; that is to say, we must guard against attempting to tone with a bath exhausted of gold.

(2) No acid must be introduced into the fixing-bath.

(3) Fixing must be complete. If fixing is not complete, no amount of washing will get rid of the decomposed hypo.

(4) Washing should be thorough.

(5) If the print is to be mounted, the mountant should be free from any trace of acidity, and the cardboard should be pure.

If these points are attended to we shall at least know that we have done all we can to ensure permanence. It will then be a matter dependent on the nature of the paper employed. Bromide and gaslight prints, in this respect, are generally admitted to be more permanent than prints on P. O. P. The image on a P. O. P. print does not consist of pure silver, as it should do in bromide or gaslight; and, being complex, is certainly more readily attacked by sulphur in the paper or in the atmosphere. Sulphur-toned bromide and gaslight prints probably come first, therefore, in order of permanence; then the same prints untoned; then prints on P. O. P. toned with gold; and then P. O. P. prints toned

HONORABLE
MENTION
REFLECTIONS



E. T. WOOD

REFLECTIONS

with platinum. In putting platinum-toned prints behind gold-toned prints in such a case, we do so because the toning is not complete. Were platinum to be substituted for silver completely the print might reasonably be regarded as permanent as a platinum print pure and simple. But platinum-toning at the most is only a slight plating of the silver image with the rarer metal, and if the silver is attacked the image fades in spite of the presence of some platinum.—*Photography and Focus*.

On the Comparative Merits of Different Developers

MALCOLM DEAN MILLER, A.B., M.D.

I. Materials and the Criteria of Perfection

DEVELOPMENT is a subject of perennial interest to most photographers. So much, however, has been written on this topic that I should feel great diffidence in adding to the already enormous mass of material, were it not that what I have to say is based on careful experiments extending over a long period of time. For some years I have made a study of all the principal agents, exposing and developing scores of plates; and my conclusions from the data thus collected may be of interest.

Before taking up in detail the results of my tests, I shall clear up the preliminaries as to plates, and try to establish reasonable criteria for judging the negative. The second paper will deal with developers primarily for plates, and the last, with those specially suited to papers.

The negative is, of course, merely a means to an end; but since the perfection of that end, the print, depends largely on the quality of the negative, it is important to secure as truthful a record of the subject as is possible to obtain in monochrome with a gelatine emulsion. Careful selection of material is the first essential. There are several brands of plates on the market with which it is almost impossible to obtain a good negative. Like the spectacles in "The Vicar of Wakefield," they are made to *sell*: moderate speed is attained by digestion of the emulsion, which, however, is coated so thinly and is so poor in silver that no developer will produce sufficient density or a harmonious range of tones. The cheapest are here, as always, the worst. It is far from economical to save a few cents per dozen on plates only to find that the negatives are practically unprintable. On the other hand, it is not necessary to pay the top-notch price, for many of the medium-priced brands are quite satisfactory for general work.

So much for recommendations. Coming now more specifically to the choice of plates, it seems necessary to establish certain definite principles as to truth of rendering in monochrome. Every one knows that no picture-process is capable of rendering the full scale of light and dark as seen in nature. The artist, with his pigments in oil or water, is limited just as the photographer is. No color is bright enough to represent the full force of sunlight; and, at the other end of the scale, no color or combination of colors can convey the darks with all their subtle gradations. The artist is forced to shorten his scale. The old masters deliberately painted down, tending to make their pictures mostly low in key, with small areas of light which contrasted effectively with their carefully-graded, transparent shadows. This was mainly due to the lack of bright yellow pigments. With the advance of chemistry, however, and the advent of the "plein air" and the "impressionist" schools, the artists found ways to lengthen their scale, to

paint up in key, and to get the impression of light by the juxtaposition of purple and yellow. The modern picture is full of light because men have studied nature and come to know that the landscape, at any rate, is flooded with light. It is the close study of values, by which is meant the relative darkness or lightness of colors, that has made modern painting so true to nature.

Photography, on the other hand, has not made so great an advance. The limits of its scale of values, pure white paper and pure black, do not reach the ends of the scale as seen by the eye. Even the blue sky is higher in tone than a piece of white paper in shadow held up to it; yet we must represent the sky as a subtle gray or lose the effect of atmosphere. It is true that sometimes a white or a yellow object on the earth, when bathed in sunlight, will appear lighter than the sky; but as a general thing no considerable part of the picture can properly be rendered lighter than the sky. Our scale extends only from pure black to a faint gray, with the pure white for accent. The black has to be sparingly used, for the landscape contains, as a rule, very little shadow-color dark enough to be represented by a pure, deep black.

Analysis of the average photograph shows an anomalous state of things. The shadow-masses are too low in tone; they lack transparency and detail. This defect increases as the distance of the observer from the picture is increased. To illustrate this, take any print which is too light when viewed at, say, sixteen inches from the eyes, and place it in a good light at a distance of six feet. Observe how the detail is massed, how the shadows darken, and how the lights gain by contrast. Part of the difficulty is due to the fact that the print on its opaque support is seen by reflected light. The same negative printed on a transparency-plate will give much more depth in the shadows, as well as more gradation in the half-tones. The basic difficulty, however, is in the false rendering of color-values by the plate. The only solution lies in orthochromatic plates.

The older, and still the more popular, type of orthochromatic plate was an improvement in some respects, but in the hands of the average worker it produces effects more horribly unnatural than those of which I have already spoken. Its sensitiveness to yellow and yellow-green is ample, but requires very full exposure, and development in weak solutions. It renders shadows too dark, increasing the scale of contrast, to be sure, but often overdoing it. The newer type, the only true orthochromatic plate, is a great advance.

This plate, usually called panchromatic, is red-sensitive. It requires a light yellow ray-filter, which increases exposure from three to five times, to hold back the ultra-violet, the violet and the blue rays and to allow the yellow, the green and the red to impress the plate. Used quite fresh, fully exposed through such a filter, and not over-developed, it gives the most truthful rendering of any plate yet produced. Under-exposure results in clear, detail-lacking shadows. Over-development obliterates the gradation in the half-tones. The key of the resulting photograph is high, depending on contrasts of small masses of shadow and light, just as the painting depends on purple and yellow, for its accents. The shadows are luminous and transparent, lighter in tone than in the ordinary



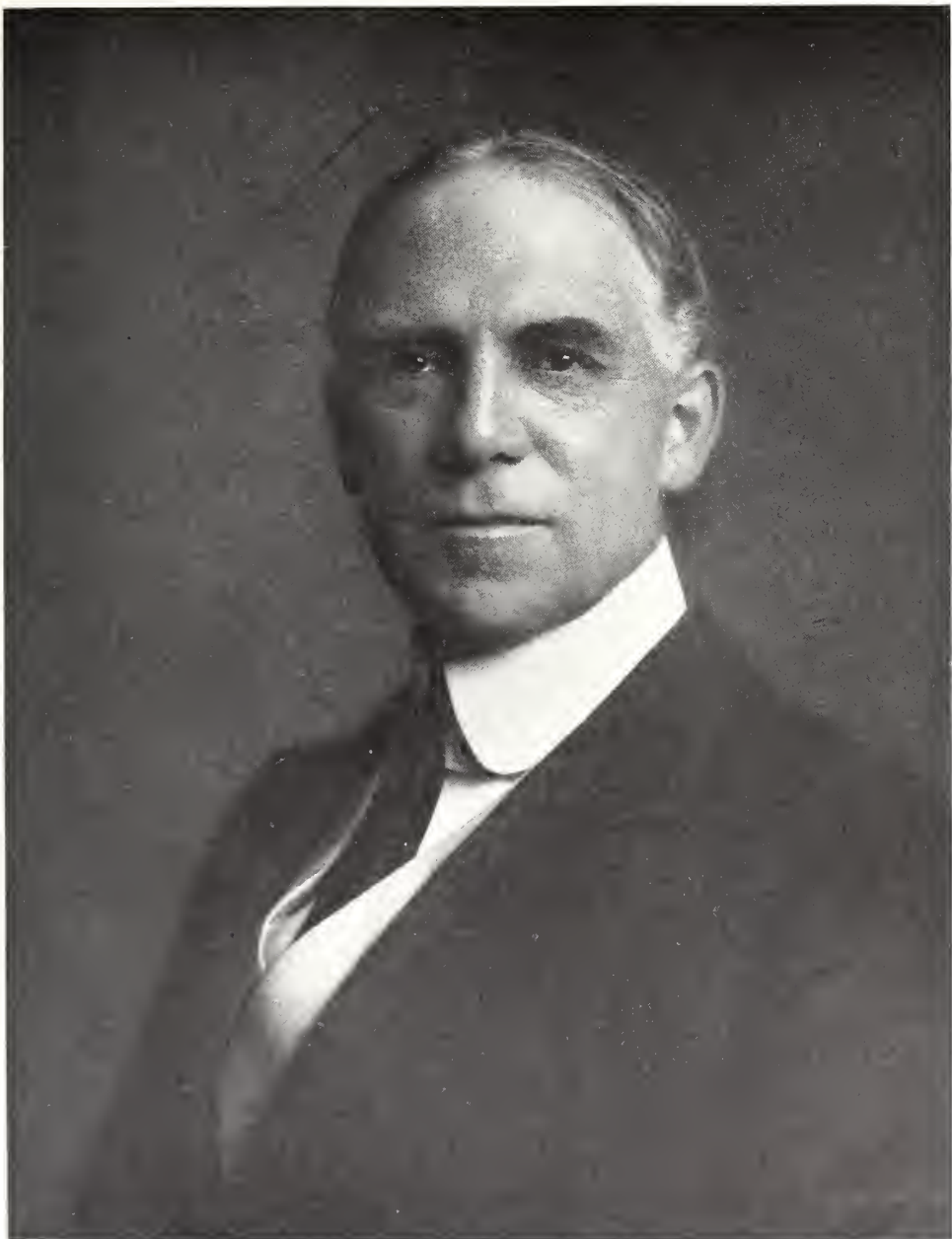
CHARLES W. JEROME

CHILDHOOD

photograph. The whole picture is full of subtle gradations; and, in the last analysis, it is only by gradation that the monochrome picture can express color.

Red-sensitive plates, then, are almost the ideal negative-making material. With increased demand we may hope that they will be made non-halation as well, preferably by the use of a colored undercoating, as in the Agfa "Isolar" and the Lumière "Simplex" non-halation brands.

The manipulation of these plates requires more care than is needed for the Ortho or Iso plates. It is best to load holders in absolute darkness. After the



W. M. HOLLINGER
PORTRAIT OF DAVID BISPHAM



plate is wet with the developer, however, it is possible to use a red or a green safe-light* to determine the appearance of the image for factorial development or to inspect the back of the plate for the first high-lights. Exposure having been calculated by meter, it is necessary only to inspect the plate briefly at the close of development. My rule is to take the plate out as soon as the highest light has come through to the glass, to rinse well under the tap for about a minute, and then fix for twenty minutes in a fresh acid-hypo bath before removing for inspection. The only trouble likely to occur in practice is the formation of fog. Perfectly fresh plates show none, but it increases rapidly with age, and by the end of two or three months in summer, or four or five months in winter, is usually excessive. It is well, on this account, to use a very quick-working developer with enough bromide to prevent the appearance of fog, and to be sure to time fully. The speed of the plates is best found by practical test, although the listing as given in the PHOTO-ERA tables is accurate as a basis to work on.

With the red-sensitive plate, established as the ideal material for negative-making, how can we get the ideal negative? This question will be answered in the second paper. In conclusion, I will define the ideal negative as one which possesses a full range of gradation from absolutely clear glass in the deepest shadows to high-lights dense enough to give a pure white in the lightest spots, yet full of printable half-tones; free from fog, veil or yellow coloration; full of detail in the shadows, and of medium intensity, so that it will print just as it looks on black and white or sepia platinum or on normal or portrait-grade developing-paper.

(To be continued.)

*A red safe-light may be made by staining a fixed plate with Methyl Violet 6B and using it with a sheet of copper-flashed ruby glass. This combination allows only the lowest end of the red to pass. The easiest way to get a green safe-light is to purchase the Virida papers as furnished by the Lumière Company for use with Autochromes.



GEORGE G. MCLEAN

PANEL OF ROSES

Vigorous Carbon Transparencies from Weak Negatives

IT is tolerably well known that in reproducing negatives, whether of the same size or enlarged, the results depend very much upon the character of the transparency from which we start. If this be thin and feeble the enlarged negative will be poor and flat; for it is next to impossible to obtain vigorous negatives from flat transparencies, whatever system be followed. At the present time it is pretty generally admitted that the best transparencies for making enlarged negatives are those by the carbon process, and this method is almost universally employed by professional enlargers who work by way of enlarged negatives. One of the reasons for this is that there is a more perfect gradation in the carbon image than is usually got in a silver one. In the silver picture we have only the silver forming the image in a perfectly even layer of the vehicle holding it, whether that be gelatine, collodion or albumen. In the carbon image we have not only the pigment, but with it different thicknesses of the vehicle — the gelatine. The pigmented film is thin in the lights; indeed, in the extreme high-lights there is practically no film at all, while in the shadows and darkest parts it is of considerable thickness; so that the gradation is due not only to the pigment, *per se*, but also to the varying thicknesses of the film which carries it.

It is very generally recognized that the best negatives for carbon printing are those of a vigorous type. The light then penetrates somewhat deeply into the tissue in the shadow, and a considerable thickness of the gelatine is rendered insoluble in the darker parts of the picture. As a matter of fact, a carbon picture is in reality a relief in gelatine — *plus* a pigment. This may often be seen in paper prints made from strong negatives, but a more pronounced relief is seen if the picture be developed on a rigid support such as a glass plate. But if the print is made from a thin and poor negative the relief will be but very slight, and as a consequence the print will be feeble and lacking in contrasts. This, however, may to an extent be overcome by modifying the strength of the sensitizing-bath, yet it may not be known to every one that carbon transparencies can be intensified by different methods. Such intensification is, in principle, quite different from that of the intensification of silver images. In the latter it is the pigment forming the image — i.e., the silver — that is acted upon, but in the former it is the vehicle holding the pigment (the gelatine) that is acted upon, and not the coloring-matter. That being the case, it is manifest that the greater the thickness of the gelatine the greater will be the intensification obtainable. Therefore, when dealing with feeble negatives the object should be to get a high relief in the image, and this is the point that will now be dealt with.

For making transparencies from negatives of, we will say, an average type, nothing can be better than the special transparency tissue made for the purpose. But for very feeble negatives that require to be intensified afterwards it is not

the best, since, in consequence of the large amount of pigment it contains, the light cannot penetrate deeply into the film. With such tissue there is always very little relief. If two prints be made from the same negative, the one on the "special transparency" tissue and the other on one with little pigment, such as some of the portrait tissues, and if the two be developed on glass, it will be seen that the one, though dense in the image, has little or no relief, whereas the other will be more or less in high relief, though it will not be so dense as regards color. Seeing that it is only the gelatine that is acted upon by the intensifying-agent, it will be obvious that the one with the strongest relief is the one that will yield the densest picture when intensified. If the two pictures be now put into a solution of permanganate of potash, which is the simplest and at the same time the best intensifier, for a few minutes, and then washed, it will be found that the thinner print has gained considerably in density, while the other has changed but little. If the permanganate is allowed to act for longer the thinner transparency will go on gaining in depth, while the other will remain very much as it was at first, and in the end the thin picture will become the stronger. The strength of the permanganate solution employed is of very little moment — the stronger it is, the quicker is its action; ten to twenty grains to the ounce of water is a good proportion to use.

From what has been said it will be recognized that as the high-lights of a carbon transparency are practically bare glass, there is nothing in them to intensify; hence, within certain limits, any amount of vigor may be obtained by intensification — in fact, far more than is ever required in practical working.

Only the permanganate of potash has been mentioned as an intensifier, but there are several others that can be used, and various colors obtained. For example, if the transparency be put into a one per cent solution of nitrate of silver until the film is thoroughly permeated, then slightly rinsed, and afterwards flowed over with the ordinary acid-pyro developer (as used in the collodion process), with a few drops of nitrate of silver solution added, the picture will be intensified, and be of a pleasing warm brown tone suitable for lantern-slides. If the transparency be immersed in a solution of a salt of iron, say the perchloride, then rinsed, and afterwards treated with a weak solution of gallic acid, a strong velvety purple-black will result. By varying the iron salt, and following it with pyrogallie acid, infusion of nut-galls, logwood, etc., a great variety of tints may be obtained. By first treating the transparency with a solution of bichromate of potash, and then with one of acetate of lead, a yellow color results, owing to the formation of the yellow chromate of lead in the film. Many other colors may be obtained by means that are analogous to those employed in the dyeing of fabrics. — *British Journal of Photography*.

You can do nothing in art without intuitions, but between whiles you must work hard to obtain the materials out of which intuitions are made. — INNESS.

A Formula for Tank Development

R. E. CRANE

THE following formula will probably be of interest to photographers who use tank development in the production of their negatives. It is based on the use of pyro, as this developer is peculiarly fitted for tank development; the objection that it stains the fingers being obviated in this case by the fact that it is generally used in a rather weak form, and that there is very little necessity for putting the fingers into it. The formula, however, will probably apply to other developers without change.

The time of development which a negative ought to receive depends upon three things; viz., the character of the developer, its temperature and the amount of contrast desired in the finished negative. The higher the temperature of a given developer, the shorter the period of development must be to produce the required contrast, and *vice versa*; and the higher the degree of contrast desired, the longer the period of development at a given temperature, and *vice versa*.

The amount of contrast in the negative will, in the development of this formula, be measured by means of the scale of contrast-factors explained in the *Photo-Miniature* No. 66 ("Practical Methods of Development"), pp. 342, 343. On page 343 is a table giving the development-periods for different temperatures and contrast-factors, for use with a special developer. In the contrast-scale the factors range from 4 to 13; the higher the factor, the greater the amount of contrast expressed. A paragraph from page 342 will explain their use:

"With regard to the choice of the contrast-factor among those given at the head of the table, this must be determined by the personal preference of the individual as to the general character of the negative desired. Naturally this preference will be considerably influenced by the amount of contrast in the subject, this depending on the character of the subject and its illumination. In a normal subject such as a sunlit landscape, where the range of contrasts is fairly large, softness will be gained by choosing a rather low contrast-factor, and crispness with a decided relief can be secured by the choice of a somewhat higher factor. In portraiture, where the range of contrasts is often small and softness is generally desirable, a low contrast-factor is generally necessary. Contrariwise, in photographs of carvings in bas-relief, where the contrasts in the subject usually require emphasis, a somewhat higher contrast-factor should be chosen."

We are now ready for the mathematical part of our subject. Let P be the time of development for the temperature 65° F and the contrast-factor 5. 65° is a good temperature for developing, and the factor 5, while not standard in any way (many would prefer a higher factor for the average negative), is a convenient one about which to build a formula. It is the factor used in the 20-minute tank-development of the Kodak film tank-developers.

Let x be the time of development for any temperature, t , considering the contrast-factor as constant for the moment. We will assume that for every de-



F. H. RICHARDSON

RUTH

gree of temperature higher or lower than 65° P must be decreased or increased by $\frac{1}{20}$ of itself. This assumption is the same as that made in the table given for use with the Kodak film-tanks, modifying the regular 20-minute development for temperatures other than 65° . This table ranges from 45° to 70° , and it is evident that the assumption would be invalid much outside these limits. For example, at 85° the required period of development would reduce to zero. Up to 70° , however, we are perfectly safe in assuming the law to hold. It is practically identical with the law deducible from the table in the *Photo-Miniature*; that is, up to 70° .

Putting our assumption in the form of an equation, we have:

$$x = P \left(1 + \frac{65-t}{20} \right) \quad (1)$$

Now let D be the proper period of development for any temperature, t , and any contrast-factor, f . In equation (1) we have x in terms of the factor 5 and any temperature, t . In order to express D in terms of x we will assume that for every unit of contrast-factor higher or lower than the factor 5, x must be decreased or increased by $\frac{1}{2}$ of itself. This assumption is the one at the base of the table in the *Photo-Miniature*. We can now write:



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THE PRESIDENT

GEORGE G. ROCKWOOD

Wm. H. Taft

$$D = x \left(1 + \frac{t-5}{5} \right) \quad (2)$$

To obtain the complete expression of D we must substitute in (2) the value of x from (1):

$$D = P \left(1 + \frac{65-t}{20} \right) \left(1 + \frac{t-5}{5} \right)$$

This expression looks complicated, but is capable of much simplification, and gives us the standard formula:

$$D = P \left(\frac{j(85-t)}{100} \right)$$

This equation, of course, takes on special forms with special values of the variables P , t and j . If we keep to a temperature $t=65^\circ$, the formula becomes $D=P \left(\frac{j}{5} \right)$. When $t=60^\circ$, $D=P \left(\frac{j}{4} \right)$. If we use a factor 5, we get $D=P \left(\frac{85-t}{20} \right)$. In the Kodak film-tank development the period P for 65° and $j=5$ is 20 minutes. Putting $P=20$ we have $D=j \left(\frac{85-t}{5} \right)$. With $t=65$, $D=4j$; that is, using the film-tank, with the developer at 65° , the time of development will be the factor of the desired contrast multiplied by 4. At 60° , $D=5j$. Using $j=5$, we have, with the film-tank, $D=(85-t)$.

The following table gives the values of $j \left(\frac{85-t}{100} \right)$, the coefficient of P in the standard formula.

$j \backslash t$	4	4.5	5	5.5	6	6.5	7	8	9	10	11
60	1	1.13	1.25	1.38	1.5	1.63	1.75	2	2.25	2.5	2.75
61	0.96	1.08	1.2	1.32	1.44	1.56	1.68	1.92	2.16	2.4	2.64
62	0.92	1.04	1.15	1.27	1.38	1.5	1.61	1.84	2.07	2.3	2.53
63	0.88	0.99	1.1	1.21	1.32	1.43	1.54	1.76	1.98	2.2	2.42
64	0.84	0.95	1.05	1.16	1.26	1.37	1.47	1.68	1.89	2.1	2.31
65	0.8	0.9	1	1.1	1.2	1.3	1.4	1.6	1.8	2	2.2
66	0.76	0.86	0.95	1.05	1.14	1.24	1.33	1.52	1.71	1.9	2.09
67	0.72	0.81	0.9	0.99	1.08	1.17	1.26	1.44	1.62	1.8	1.98
68	0.68	0.77	0.85	0.94	1.02	1.11	1.19	1.36	1.53	1.7	1.87
69	0.64	0.72	0.8	0.88	0.96	1.04	1.12	1.28	1.44	1.6	1.76
70	0.6	0.68	0.75	0.83	0.9	0.98	1.05	1.2	1.35	1.5	1.65

For example, we are using a developer at 68° , for which $P=15$, and want a contrast of 8. From the table, the coefficient of P for 68° and $j=8$ is 1.36. Then $D=15(1.36)=20.4=20$ minutes and 24 seconds.

It will be well to repeat that the formula must not be used for temperatures higher than 70° . It is evident, also, that care ought to be taken to keep the temperature of the developer fairly constant throughout the period of development. If during a 20-minute period the temperature rises from 65° to 70° the negative receives the equivalent of 20-minutes development at, perhaps, $67\frac{1}{2}^\circ$, or the same as 23 minutes at 65° . That is, if a contrast-factor of 5 is desired, one of nearly 6 would be obtained.



HERMANN LINCK

WINTER EVENING

Latitude in Bromide Work

C. WINTHROPE SOMERVILLE, F.R.P.S.

TO say that the greater the latitude in a printing-process the greater its value for pictorial and other purposes might, at first hearing, appear unsound, since one might well reply that the greater the play the more irregular the fit, or the more difficult to obtain an accurate rendering.

From a mechanical point of view, this might apply, but in connection with chemical and optical laws it has to be considered in a different light.

In printing-out papers, such as carbon, platinum, P. O. P., etc., there is practically only one form of latitude, and that is its resistance to light-action. It is, therefore, in a sense, automatic with the negative.

Bromide paper, being a development paper, may claim to have three forms of latitude: (1) that due to the inertia of the paper itself, which we may conveniently take to be the combined resistance to light and developer; (2) exposure; (3) chemical control during and after development.

In printing-out papers the action of light creates a definite effect which, for all practical purposes, is a fixed quantity, subject to little or no alteration.

In a development paper the action of light creates an effect which is *unfixed* and amenable to chemical manipulation to be fixed in any desired condition.

This unfixed effect is the great charm in bromide paper to the skilful worker. In the hands of the careless it as often leads to most weird and wonderful results as it does to disaster.

LATITUDE OF INERTIA

This may conveniently be likened to the usual house built with cards; one of the foundation-cards slips partly and throws the whole of the edifice under a strain; this is the effect of the action of light on the paper. The application of the developer is equivalent to knocking the card completely away, causing the units, or cards of which the edifice is built, to come tumbling down. At the end of this tumble some cards may still be in a standing-position, but gradually falling; another push in the form of stronger developer hastens the downfall, although it would be only a matter of time for them to fall of their own accord, since their equilibrium had been upset.

If, now, this card house be strongly built a greater push is required to upset it, and it will subside comparatively slowly, lying down in fairly even lumps or solid layers of cards.

Thus is represented the gaslight paper with its high inertia, requiring a strong developer and greater or longer light-action, the layers of cards representing the deposited silver being few, but well defined, in imitation of the gradation-scale. The rapid bromide paper is like the lightly-built house, requiring a lighter touch to upset it, and the result of its rapid tumble being to spread out to a greater area in less-defined layers.

LATITUDE OF EXPOSURE

This is simply a question varying the amount of slip of the foundation-card, leaving the developer to complete the downfall, which will be more or less rapid as the case may be.

LATITUDE OF CHEMICAL CONTROL

If (1) we arrest the downfall by pasting together at any period; or if (2) we apply our hands and remove the cards one by one till we have lowered it as far as we require; or if (3) we take some cards and place them on another part of the edifice, we are exerting chemical control by (1) fixation with normal development; (2) fixation after slow or tentative development; (3) fixation after the use of bromide of potassium. Other methods of control during development are possible, but need not be given here. Then subsequent chemical control may be represented by adding to or taking away cards from the pasted-up edifice; this is intensification and reduction by means of bleaching and redevelopment.

To put the foregoing into practice the following points should be remembered:

1. Gaslight papers have a higher inertia than bromide, requiring a greater exposure — either of a longer duration or to a more powerful light. The gradation-scale is more sudden, more defined, but of smaller length. A more powerful developer is required; but its resistance to chemical treatment is greater in that



PAUL R. MORRISON
THE NUN





F. F. SORNEBERGER

A MEADOW POOL

it is not so sensitive, and less in that it will not stand such vigorous or prolonged application without deterioration. Correct exposure and rapid development are almost a *sine qua non*.

2. With bromide paper the exposure may be carried considerably beyond that required to just print through the highest light, and a most excellent result obtained by slow, weak development and the judicious application of bromide of potassium, further correction for a lack of density in the blacks being obtainable by bleaching and redeveloping after fixing.

3. Above all things, it is necessary to remember that, as in all other printing-processes, the quality of the print is initially absolutely dependent on the original negative, although the possibility of corrections for the imperfect negative are greater than with any other process.

Your perfect negative is one in which the exposure necessary to produce gradation through the highest light on development to infinity is sufficient to produce maximum density in the shadows.

If your contrasts are too great your print will be flat from over-exposure — with consequent partial reversal of your shadows. If the contrasts are too slight your print will also be flat, owing to insufficient exposure to the shadows which will fail to obtain sufficient density by the time the high-lights are printed through.

— *The Amateur Photographer and Photographic News*.

EDITORIAL

A Delicate Subject

SOMETIMES a merchant, hotel-keeper, restaurateur, hair-dresser or dentist discovers a mysterious decline in his business. He has not been remiss in attention to his trade — certainly every year has added to his expertness. He tries to ascertain the cause, but it is beyond his own discovery; only the faithful wounding of a friend or a downright complaint reveals the secret. Your average customer is not disposed to express his dissatisfaction, but quietly changes his place of patronage. The merchant, if a complaint is made, at once sets to work to correct the trouble. It often happens, to be sure, that the complaint is not well founded, and even then a prompt apology or polite explanation will restore the pleasant relations between purveyor and patron.

In the case of the portrait-photographer, however, there is perhaps a dread secret against him which is a secret only to himself, a ground of disapproval among his customers — chiefly on the part of the gentler sex — which is of so serious a nature that he may not be surprised if the matter has never before come to his notice. It is not a question of the quality of his work, the sanitary condition of the establishment, the incivility of employees nor the lack of elevator-service — for these deficiencies are not of so delicate a character but that they may be made the subject of a complaint to the proprietor or his representative — but of a personal objection to the operator. It is, in other words, the offensiveness of the proximity of the posing-artist on account of his bad breath. Whatever may be the cause of such an unfortunate physical condition, the individual so afflicted should lose no time to ascertain its origin and correct the conditions; for, even though he possess all the cardinal and Christian virtues, this one fault is enough to disqualify its possessor from engaging in any pursuit which brings him in close contact with others. This affects, particularly, the photographer; he is obliged to approach the sitter when arranging the pose or modifying the composition. Anything disagreeable in his personality in such propinquity is just as offensive to a sensitive sitter as an ill-chosen remark or a lapse in good breeding. And it would be interesting to know to what extent this unconscious offending on the part of the operator has prevented him from obtaining that much-desired pleasant expression. No man of delicate sensibilities will submit to being shaved more than once by a barber who has a tainted breath; indeed, such an unfortunate could not find employment in a first-class “tonorial establishment.”

An unpleasant topic this, and one more fitting for a medical journal than a photographic publication. But when the editor is in possession of trustworthy information regarding the existence of the evil, and realizes its terrible consequences to many a well-meaning and capable craftsman who may be entirely

unconscious of the self-inflicted menace to his welfare, the editor considers it his duty to bring up the matter for attention. This is done in the kindest possible spirit, and with the sole intention of enlightening those who have not had the benefit of friendly and frank advice on a subject which in some cases may outweigh even professional skill, however great.

Our Annual Contest Pictures

IN his review of the PHOTO-ERA Sixth Annual Photographic Competition, printed in the January issue, the editor stated that the artistic quality of the prints submitted was so uniform that the judges found it difficult to decide upon the successful prints. As originality took precedence over mere attractiveness, these prize-pictures lacked in a measure the element of popular appeal, yet possessed beauty of a high order. Many of our readers will, no doubt, be glad of an opportunity to compare the prize-pictures with those which narrowly missed the approval of the jury. We have, therefore, selected a number of the most attractive of these unsuccessful prints for reproduction, and they will form the pictorial feature of the May issue.

A Decline in Clerical Efficiency

ONE of the greatest industrial problems facing the economists of this country to-day is to find employment for the legion of young people who, with yearly regularity and in increasing numbers, are being graduated and turned loose upon the world by our educational institutions. And it is a curious fact that most of those who, two or three years ago, were so fortunate as to obtain positions in a professional or mercantile capacity, have failed to show the required ability and interest.

What wonder, then, that from every industrial quarter comes the plaint of general inefficiency. The quality of photographic salesmanship, too, is at a low ebb. Photographic dealers are embarrassed for the lack of intelligent and faithful clerks. Photo-finishers of the better class find it difficult to secure efficient and trustworthy assistants, although in both cases the remuneration is generous and commensurate with the character of the service to be performed. Can any one state the reason for this state of things?

The Photo-Era Loan Exhibit

THERE has been a growing and constant demand by public libraries, art and photographic clubs for the loan of collections of artistic photographs. To help meet this the prints awarded prizes and honorable mention during the entire year 1907 in the monthly contests of the Round Robin Guild were sent out for exhibition purposes. So many were the requests for them that a duplicate set was proposed, and both made an extensive tour of the country. A similar collection for the year 1908, surpassing its predecessor in originality and artistic beauty, is now ready. As the demand for this exhibit will, no doubt, be very great, clubs wishing it should apply at once.



HARRY M. HOPE

THE LAKE SHORE

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus

AN INDEX-BOOK

THE motto of that useful periodical, *Notes and Queries*, is, "When found, make a note of." This was the advice of Captain Cuttle, that eccentric old sailor in "Dombey & Son." He was very fond of quoting, and then desired the one to whom he spoke "to overhaul the catechism till he found it," and then added this sage advice: "And when found, make a note of!"

If we amateurs would take this for our motto how much time and vexation we should save ourselves! We read what seems to be a very valuable formula, or we find hints on convenient ways to do things, directions for remedying defects in negatives, etc., and we think we will remember where we saw the article; but alas, we fail to "make a note of," and when we are in need of just this bit of information we find to our sorrow that we have n't the slightest clue to its whereabouts, for in these days of endless book-making and reading it is a very difficult thing to remember just where one saw the article in question.

Every amateur needs a photographic index-book. This he may make for himself of plain manila paper or tea-paper of good quality, or he may buy a regular index-book. A good-sized blank book with the letters showing at the edge in crescent cuttings is the most convenient form of book, as one must have his index so arranged that he may turn to any letter at once. If one makes his own book he will have to devise his own way of having the letters get-at-able. For instance, he may buy a set of leather letters gummed at one end, which may be attached to the book-leaves in alphabetical order, or he may make his own crescent cuttings and paste letters on the leaves as in the regular books made in this fashion.

The book should be large enough to have the pages ruled in three divisions. The first division should have the name of the topic; the second should have the book and volume, and the third should have the page. In making references to articles in magazines, the month and year should be added to the book and volume. If the item is a short one incorporated with some other article it is a good idea to put a letter after the page, indicating whether the item may be found at top, middle or bottom.

If one wishes to be more up-to-date and spend more money he may make a card-index. One

buys the cards and the box or drawer to keep them in, or one may buy a small case which will be sufficiently large to include many subjects besides that of photography. However, one need buy only the cards, for any one at all handy in the use of tools can make a box of a size to fit the cards. The editor has one of these hand-made card-indexes and finds it just as useful as the more expensive cases. This index was started in a pasteboard box ten inches long and a little wider than the cards. With a photograph trimmer, cards the same length but wider than the index-cards were cut, good-sized letters selected from magazine advertisements were pasted at the corners in their proper sequence, and behold a card-index as useful and as handy as the more elaborate case! The index outgrew its quarters and was transferred to a long, deep cigar-box, and it has now expanded so that its new quarters are in a wooden box eighteen inches long. A slanting block at the end gives the cards the proper incline, and a block at the space in front holds the cards in place.

One convenience of this card-index is that one may indicate on the cards the outline of the article referred to or may note the results of the experiment.

In an earlier number of PHOTO-ERA reference was made to a set of scrap-books, and for the benefit of our new members the directions for making will be repeated, queries as to scrap-book-making having come in recent correspondence.

These handy scrap-books are made of manila paper, stout but not too heavy. This paper may be bought very cheaply at any wholesale warehouse. The sheets of paper are folded into booklets about 9 x 12 in size and containing perhaps thirty-two leaves. They are then sewed together with thread, a piece of cord is run through near the top and a brass ring tied into it. The brass ring is for a hanger, these books not being intended either to be set up or laid down on a shelf. Each scrap-book is designed to contain scraps on one subject only. The title is placed on both front and back covers, so that, no matter which way the book happens to be hanging, its title will be in evidence. Instead of writing the title, one should print it in large letters easily seen.

There will be one book on developers, another on toning, another on printing, etc., etc. In

every box of sensitive plates one finds a circular giving directions for the treatment of this particular plate, developer formulae, and causes of failure and how to remedy them. Copies of these should be saved and pasted in the book, and one has at hand all the information necessary for the treatment of the plate indicated. Directions for the different gaslight papers would make another scrap-book, and the printing-out papers another, the object of using a different book for each subject being the convenience of having it all in one place and easily found.

In attaching the scraps to the paper, paste only at the corners. This keeps the book in better shape, saves time, and if one wishes to remove a scrap it can be done without hurting either the scrap or the book.

Have two or three outside leaves; then when the cover becomes soiled tear it off and use the fresh one underneath.

With a photographic index and a set of scrap-books one has the answer to many a difficult question. It is not so very long ago that the editor received from a correspondent a letter which contained twenty questions, all but two of which might have been answered had the writer possessed a photographic index.

Let us of the Round Robin Guild from henceforth adopt for our motto, "When found, make a note of!"

DROPS FROM A BOTTLE

Photography suggests an easy method by which a liquid may be prevented from running down the side of a bottle instead of dropping from it as desired. The bottle should be made repellent with a little vaseline on one side, except on the lip or rim whence the drops must fall. White wax dissolved in benzine, painted onto the bottle and allowed to dry gives a much neater result.

SEPIA TONES ON BROMIDE PAPER

A VERY pleasing sepia tone may be obtained on a bromide print by toning it in platinotype solution and then redeveloping it in a weak developer.

Make up a developer as follows:

Potassium chloroplatinate20 grains
Bichloride of mercury10 "
Citric acid90 "
Water10 ounces

When ready to develop add to this not quite half a dram of a ten per cent solution of bromide of potassium. Place the print in this solution and rock the tray gently till the right tone is obtained. Wash well in running water and then redevelop in the developer used for bromide prints — any formula which one is accustomed to use will answer — diluting the developer by adding to it water, four times the quantity of the developer.

The tone will be a very pleasing shade of sepia, and may be made warmer by omitting the bromide of potassium from the developer.

Amidol is one of the most satisfactory devel-

opers for bromide prints. A formula which gives excellent results is made of three hundred grains of sulphite of soda, five grains potassium bromide, five grains of citric acid, thirty grains of amidol and twenty ounces of water.

The image comes up very quickly, but this does not indicate over-exposure, and the print should be allowed to remain in the solution till it gains density.

It is a very clean developer and produces prints of fine black, resembling engravings in quality.

Amidol does not keep well in solution, so it is not advisable to mix more than is to be used at the one time of developing.



Some persons are ignorant of having an artistic eye, until they see artistic work.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

RULES

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of*

date, light, plate or film, stop, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

SUBJECTS FOR COMPETITION

January — "Photographs of News Events." Closes February 28.

February — "Winter Landscapes." Closes March 31.

March — "Historic Pictures." Closes April 30.

April — "The Brook in Springtime." Closes May 31.

May — "Farming-Scenes." Closes June 30.

AWARDS — REFLECTIONS

First Prize: George Alexander.

Second Prize: Paul Fournier.

Third Prize: George H. Scheer, M.D.

Honorable Mention: Paul Lewis Anderson, E. T. Wood, C. W. Christiansen, F. F. Sornberger, S. S. Skolfield, E. S. Gage, A. B. Hargett, Richard Pertuch, E. R. Bolander, T. L. Mead, Jr., Dr. W. A. Rawson.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

H. H. KEENE.—The ordinary white canvas used by artists makes an excellent flexible lantern-screen. I should not advise you to try to size heavy cotton for such a purpose. Aside from the trouble, the result would not be satisfactory.

JANE F. R.—A formula for a slow reducer is made as follows: ten grains of bichromate of potash, ten minims of sulphuric acid, twenty ounces of water. Place plate in this solution and let it remain until the degree of reduction required is reached. Remove and wash thoroughly. If the plate needs only slight reduction it is well to add a little more water to the solution.

FREDERIC G.—The article to which you refer may be found in the August, 1908, number of PHOTO-ERA. It gives detailed directions for the treatment of defects in negatives. Yes, you may send in a subscription for six months, though it is more advisable to make the subscription for a year. It may commence with the current number if you prefer to have it do so.

A. M. ARNOLD.—To brighten your platinum prints brush them over with the solution known as artist's fixatif. It will bring out the detail in the shadows, which now seems scarcely visible.

C. C. V.—You may send as many pictures as you choose to each of the monthly contests. However, it is wiser to send two or three really good pictures than to send a dozen or more inferior ones. The motto of the Guild is, "Not how much, but how well."

HELEN R.—Use hydroquinone developer for bromide prints where good contrast is desired. For softer prints use metol-hydroquinone. Do not use the oxalate developer for paper. It is apt to stain, and the prints are not as pleasing in color as with either the hydroquinone or with the metol-hydroquinone. To remove the discoloration from your gaslight prints place them in a solution made of one ounce of sulphuric acid, one ounce of chrome alum and ten ounces of water. The prints must be well washed after being submitted to this restoration process and then dried in the usual manner.

RAY LOOMIS.—The iridescent stains on your negative may be removed by rubbing gently with a piece of chamois dipped in a weak solution of Farmer's reducer or, if not of too long standing, use alcohol.

DONALD B. FOSTER.—In developing gaslight paper which has been over-exposed and in consequence comes up very quickly, have ready a dish of weak acetic acid solution and the moment the print has reached the desired depth remove it at once to the acid bath, then rinse and place in the hypo solution.

BERTHA B.—A hardening-bath for Ozotype prints is made of one ounce of alum dissolved in twenty ounces of water to which, when thoroughly dissolved, is added thirty minims of hydrochloric acid. Let the print remain in the bath for five minutes, wash in cold water and then dry.

HOWARD S. D.—Do not use ready-prepared mucilage for gum prints. Make your own mucilage by soaking an ounce of the best white gum-arabic in five ounces of water until dissolved. Filter or strain through fine muslin. A good way to dissolve the mucilage is to place the bottle in a hot water-bath and let it remain on the back of the stove until the gum is dissolved.

S. V. C.—When intensifying negatives that have been dried, they should first be soaked for half an hour in water, to soften the film. If the negative is an old one and the film very hard it may be softened by soaking it for ten or fifteen minutes in an acetic acid solution made in the proportion of thirty minims of glacial acetic acid to each ounce of water.

A. L. P.—The plain paper which you are intending to sensitize according to the formula in the Guild department may be toned either in the separate baths or in a combined bath. In toning in a combined bath use fresh solutions. An old toning-bath has not sufficient fixing-strength.

WILL BRODMAN.—Your negatives are very much under-exposed, and it would be the wiser plan to destroy them and make new ones of the same subjects. It is poor policy to strive to



GEORGE H. SCHEER, M.D.
ON QUIET WATERS
THIRD PRIZE — REFLECTIONS



FIRST PRIZE
REFLECTIONS



GEORGE ALEXANDER A HAZY AUTUMN MORN

make a good negative out of an under-exposed and over-developed one, especially when one can readily photograph the subject again, as you say you can do.

G. T. R.—The handbook has been mailed you, and in it you will find the subjects for the monthly competitions up to and including May, 1909.

JAMES L. E.—To tint photographic paper soak it, after printing and developing and before drying, in a solution of strong coffee. Another method which imparts a tone to the paper similar to that of an old-time engraving is to immerse the print in a weak solution of bichromate of potash, dry it in the dark and then expose it to the light.

M. L. O.—Marks or abrasions on Velox prints may be removed by sponging the print with a piece of absorbent cotton dipped in alcohol. Use the heavy paper for the negative from which you enclose a print and you will have a much more artistic picture. This print will also bear trimming at the left side just enough to remove the white streak at the back of the chair.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"LOVE-IN-A-MIST," F. F. D.—This is a charming study of the pretty flower known as love-in-a-mist. The background is a very light shade of gray, against which the mossy envelope of the flower is outlined distinctly. The arrangement of the flowers is very good, the space being well taken up, but the print will bear trimming at the left side and at the top at least three-quarters of an inch. This will bring the principal object, the blossoms of the flower, away from the center and give better balance. The

artist also sent several other flower-studies of merit, but the one just described is the only one which has any special value artistically.

"GERTRUDE," H. H. K.—This is a three-quarter length figure-study. The subject stands with one hand on her hip, the other arm and hand being dropped at the side and not in view. This would be an excellent picture were it not for two faults, one of which can be remedied, but the other cannot. The first is the placing of the figure on the plate. It is placed directly in the center, with equal space on both sides. By trimming off an inch at the left the whole effect is changed very much for the better. The second fault is the angle made by the elbow, which is not only very acute, being thrust forward toward the observer, but, the arm being bare, a strong high-light, which is thrown on it, detracts the attention from the face itself. The drapery of the figure is very good, being subdued in tone and in long, graceful lines. The modeling of the face is excellent, as is also the pose of the head. Gertrude is worth trying over again.

"A SNOWY NIGHT," F. E. B.—This print depicts a country road at twilight, and a pedestrian slowly making his way through the snow toward a distant house, the outlines of which are seen dimly against the sky. The subject is excellent and the point of view well chosen, but the negative was much under-exposed. The

print has a muddy gray appearance where the shadows lie deep across the snow, and consequently does not suggest snow at all. This was evidently taken near sunset, the air full of mist, and had the exposure been prolonged a trifle more a very interesting picture would have been the result.

"AN IDLE MOMENT," S. L. R.—This is a picture of a woman seated in a chair near a window. A sewing-machine, a quantity of cloth and an unfinished garment indicate what was the occupation. The woman sits with her head turned away from the observer, her hands clasped behind her head and her gaze evidently directed toward the sky. The whole figure shows the relaxation of a tired worker who drops her task for a moment to steal a bit of rest. The fault of this picture is that there is too much impedimenta in the way of work. The seamstress does not as a rule dump her unused material in a pile on the floor. The garment fallen from the hands would have been indication enough of what idea was to be conveyed. The sewing-machine is also too much in evidence and obtrudes itself, taking attention from the figure, on account of the strong high-light on the wood. This would be a subject worth trying again, looking a little more carefully after the accessories and subduing everything in favor of the subject herself.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
Anso Film, N. C. and Vidil	Hammer Extra Fast	Class 4
Cramer Crown	Hammer Extra Fast Ortho	Stanley Commercial
Cramer Crown Non-Halation	Hammer Non-Halation	Class 5
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Cramer Commercial
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Plain
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Ortho
Cramer Trichromatic	Seed L. Ortho	Defender Ortho Slow
Defender King	Seed Non-Halation	Hammer Slow
Defender Ortho Inst.	Seed Non-Halation Ortho	Hammer Slow Ortho
Eastman N. C. Film	Standard Extra	Class 8
Ensign Film	Standard Orthonon	Cramer Slow Iso
Hammer Special Extra Fast	Class 1 1/2	Cramer Slow Iso Non-Halation
Imperial Special Sensitive	Lumière Ortho A	Class 12
Imperial Orthochrome Special Sensitive	Lumière Ortho B	Defender Queen
Kodoid	Lumière Panchro C	Seed Process
Magnet	Class 2	Class 100
Premo Film Pack	Cramer Medium Iso	Lumière Autochrome
Seed Gilt Edge 27	Cramer Medium Iso Non-Halation	Lumière Red Label Slow
Standard Imperial Portrait		
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For March

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of March, on any fine day between 11 A.M. and 1 P.M., when the sun is shining brightly and the lens is working at $f/8$, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if $f/11$, U. S. No. 8, is used; also between 8 and 9 A.M. and 3 and 4 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and very dull light, or if $f/16$, U. S. No. 16, is used; also from 7 to 8 A.M. and 4 to 5 P.M. For $f/5.6$, U. S. No. 2, give half. From 9 to 11 A.M. and 1 to 3 P.M. increase the exposure one-third.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds; open snow-scenes without foreground . . .	1/1024	1/512	1/400	1/320	1/256	1/200	1/128	1/100	1/80	1/64	1/40	1/5
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds; winter-scenes having very light snow-covered foregrounds	1/512	1/256	1/200	1/160	1/128	1/100	1/64	1/50	1/40	1/32	1/20	2/5
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds; average snow-scenes	1/256	1/128	1/100	1/80	1/64	1/50	1/32	1/25	1/20	1/16	1/10	4/5
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes; snow-scenes with excessive contrast	1/128	1/64	1/50	1/40	1/32	1/25	1/16	1/12	1/10	1/8	1/5	1 3/5
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving objects at least thirty feet away	1/64	1/32	1/25	1/20	1/16	1/12	1/8	1/6	1/5	1/4	2/5	3 1/5
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/32	1/16	1/12	1/10	1/8	1/6	1/4	1/3	2/5	1/2	4/5	6 2/5
Portraits outdoors in the shade; very dark near objects	1/16	1/8	1/6	1/5	1/4	1/3	1/2	2/3	4/5	1	1 3/5	13
Badly-lighted river-banks, ravines, glades and under the trees	1/8	1/4	1/3	2/5	1/2	2/3	1	1 1/3	1 3/5	2	3 1/5	26
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	3/8	3/4	1	1 1/5	1 1/2	2	3	4	4 4/5	6	10	77

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

OUR ILLUSTRATIONS

OUR custom of giving complete data about the photographs reproduced in PHOTO-ERA is proving so popular, especially among beginners who wish to benefit by the practical experiences of those more proficient in camera work, that we shall, hereafter, maintain this feature as a regular department. In it, to simplify matters, will also be treated the prize-winning prints in the monthly competitions of The Round Robin Guild.

Our frontispiece this month is a portrait of Bertha Cushing Child, the eminent Boston vocalist, especially successful in the interpretation of classical music. The photographer, J. H. Garo, has succeeded admirably in expressing the refinement of his subject's artistic nature. The picture also serves to stamp its author as a powerful interpreter of human character and a master of composition and technique. This portrait is one of the finest examples of Mr. Garo's genius, and illustrates the fact that a work of art results when artist and sitter are in harmony with each other. Data: August, 4 P.M.; Goerz Celor lens, Series 1 b, No. 8, $f/5.5$, 19-inch focus; open stop; Seed 27 plate; 1 second exposure; pyro-soda developer; 8 x 10 platinum print.

"In the Fog," by Harriet Lynam, although not so pleasing as her print in PHOTO-ERA last October, is good in atmospheric quality. The swan is a little too centrally located, and the position of its neck unfortunate, but the whole picture possesses the charm of simplicity and an unobtrusive background. Data: 8 A.M.; sun through fog; Goerz Dagor lens; stop 8; $1/25$ second exposure; Kodak N. C. film; pyro developer; W. D. platinum print.

Spontaneous and original in its conception is "Peek-a-boo," by Mrs. W. W. Pearce. No woman has been more successful in photographing children than she, and it is largely because she knows her little models must not be posed if they are to be natural and free from self-consciousness. Art-composition is not often possible in this work, but the pictures ring true, and that, in this particular case, is, after all, of most importance. Data: July, 11 A.M.; bright sunshine; Cooke lens, Series III, $8\frac{1}{2}$ -inch focus; $f/6.5$; $1/100$ second exposure; Ilford plate; metol-hydro developer. The negative was made with a 5 x 7 Graflex camera. From it an enlarged negative was taken and printed on Italian green carbon.

"Solitude" is a well-named and successfully-executed snow landscape by Hermann Linck. The composition is bold, and the lines are such as to give a variety of spacing. Snow texture and the dull sky of late afternoon are well rendered and show the value of using a color-filter. Data: January, 4.30 P.M.; no sun; Goerz anastigmat,

12-inch focus, $f/48$; 15 seconds exposure with light yellow filter; Isolar orthochromatic plate; pyro developer; carbon print.

One of the most charming photographs of Niagara Falls which has come to our attention is that by George Vieweger. The delicate clouds of the original are not done justice in the reproduction. Data: September, 9.30 A.M.; Zeiss Universal lens, 6-inch focus; stop $f/11$, with Voigtlander Alpha color-filter (2 times); $1/25$ second exposure; Agfa-Chromo plate; pyro-acetone developer; Cyko Professional Semi-Matt print.

A print which shows the possibilities of meagre material even in late autumn is "Reflections," by E. T. Wood. The spacing is attractive and the softness of focus distinctly pleasing. Data: November, 11 A.M.; light haze; $1/5$ second exposure at $f/16$.

"Childhood" is the title of a cute little semi-nude by Charles W. Jerome. The innocence of childhood renders the nude in such a subject admissible and attractive even to those who ordinarily object to it. The shadow-side of the face in this print is, we think, a little too dark. Data: March, 11 A.M.; fairly strong light; Goerz Dagor lens, $16\frac{1}{2}$ -inch focus, stop 4; $2/5$ second exposure; Seed 26X plate; weak pyro developer; Anglo Sepia platinum print.

Portraits by W. M. Hollinger, especially those of men, are always distinctive characterizations. His "Portrait of David Bispham," the noted vocalist, is no exception—it is a speaking likeness. The lighting is excellent, and the head well placed in the space. Interest might have been concentrated upon the face by keeping down the values of collar and vest, but this is a minor criticism. Very little data is available about this picture, except that it was made with a Usener lens, 16-inch focus, on a Hammer plate. A pyro developer was used and the print is on sepia platinum.

George G. McLean seems to specialize in photographing flowers. He may do other work with the camera, but we have not seen it. The present arrangement is intended for page decoration, and answers its purpose admirably. The relative values and gradations are well rendered, and credit, it seems, is due to a Cramer Medium Iso plate. This was developed in a metol-hydro solution after an exposure of thirty seconds indoors with the lens working at $f/64$.

Cheerful small children before the camera are hard to find, but F. H. Richardson's "Ruth" seems to enjoy the fun. The posing, if posing it be, is superb, and the lighting soft and harmonious—a successful portrait decidedly to the credit of its maker. Data: 11.30 A.M.; good light, screened by one thickness of cheese-cloth; Nehring R. Portrait lens, $12\frac{1}{2}$ -inch focus, $f/32$;

$\frac{1}{2}$ second exposure; metol-hydro developer; Iris print.

In the portrait of President Taft by George G. Rockwood we have a likeness which is a direct opposite to the pictures which illustrate his well-known humor and good nature. From these one would not suppose that our new president is a man of strong and independent character and endowed with uncommon mental gifts. This fact, however, has been brought out very strongly in this picture by Mr. Rockwood. Data: December, 11.30 A.M.; good light, but sky slightly overcast; Goerz lens, Series III., No. 8, 10-inch focus, used wide open; 5 seconds exposure; Standard Imperial plate; adurol development in a tank; Azo print for reproduction.

Another winter-scene by Hermann Linck, more attractive but showing characteristics like the first, is "Winter Evening." The lines and spacing are good, and the decorative value of trees well placed is seen to advantage. Data: January, toward evening; no sun; Goerz anastigmat, 12-inch focus, $f/48$; light yellow filter; 12 seconds exposure; Isolaur orthochromatic plate; pyro developer; carbon print.

Paul R. Morrison gives us a character study of "The Nun" which is remarkable if for no reason other than the beautiful treatment of values. The ordinary worker would have had a glaring white-paper high-light in a picture of this sort; yet painters never paint as pure white that which really is so, and why should the photographer allow such a defect to destroy all harmony and delicacy of tone? Here is the effect of white without its objectionable qualities, and it is produced by the juxtaposition of light and dark masses. In this subject the would-be pictorial portraitist will find an object-lesson worth his while to follow. Aside from this matter, the model is well chosen for the purpose, and the pose is one which admirably portrays the spirit of self-abnegation. Data: January, by the light of a large window screened with paper cambric; 11 A.M.; bright light outside; portrait lens at $f/5$; 3 seconds exposure; Standard Imperial plate; pyro developer; sepia platinum printed through two pieces of celluloid; mounted with two harmonizing shades of cover-paper.

"A Meadow Pool," by F. F. Sornberger, has all the quiet beauty of a water-color, and contains just the sort of material a painter would choose. All of Mr. Sornberger's prints show a keen appreciation of nature in all its varying moods. Data: June, 4 P.M.; hazy sun; Goerz lens, Series III, rear combination only, 11-inch focus, $f/16$; $\frac{1}{2}$ second exposure; Hammer plate; rodinal developer; platinum print.

Harry M. Hope gives us a landscape, called "The Lake Shore," which has been much admired for its charm of locality and soft tonal qualities. It certainly is beautiful, and makes one long for the summer days to come. The left-hand shore-line is charming in its curves, and the accents of sunlight in the background are successful in giving distance and "snap" to the picture. As a composition it contains a de-

fect, not objectionable to some, which is rather common in landscapes; viz., the horizontal shore-line and the vertical line of one of the trees and its reflection divide the space into four practically equal portions. This is unfortunate, for, as Alon Bement so ably pointed out in the December issue, variety in the shape of masses is a quality to be striven for. Data: 10 A.M.; sunlight; single achromatic lens, 12-inch focus, $f/11$; $\frac{1}{2}$ second exposure; Stanley plate; metol-hydro developer; platinum print.

The first-prize print in the "Reflections" contest of The Round Robin Guild, "A Hazy Autumn Morn," by George Alexander, is not done justice in the reproduction — it is too delicate and subtle. The original is an 8 x 11 print of exceptional beauty, and possesses atmospheric qualities of a high order. Our engraver made several conscientious attempts to preserve its qualities in a full-page plate, but the attempt proved fruitless, and it became necessary to reduce it to small size in order to use it at all. Data: September, 9 A.M.; sun breaking through the haze; Standard Orthonon plate, $1/25$ second exposure at $f/11$; pyro developer; bromide enlargement.

We regret that the second-prize print, by Paul Fournier, was not suited to reproduction and that it was impossible to secure another in time for this issue. The subject was most unusual, and skilfully handled. It represented a swimmer crouched on a stump at the edge of a pool, just preparing for a dive. The nude was here justified, and its commendable treatment and originality made it doubly acceptable.

Characterized by its simple boldness and the fascination of its reflections is "On Quiet Waters," by George H. Scheer, M.D. Of the many similar efforts we think this is the best we have seen, and believe it well worthy of the third Guild prize. Data: September, 11 A.M.; hazy but bright light; R. R. lens, $5\frac{1}{2}$ -inch focus, $f/8$, wide open; $1/10$ second exposure; Cramer Inst. Iso plate; pyro developer in tank; enlargement from $3\frac{1}{4} \times 4\frac{1}{4}$ on Monox bromide.

"Officers of the P. A. of A.," by J. E. Mock. Data: January, 2 P.M.; light very poor; Wollensak Royal Portrait lens, 16-inch focus, stop $f/4$; exposure, 4 to 5 seconds; Seed 27 plate; print on Azo developing-paper; regular metol-hydro developer. The men are grouped easily and naturally, conforming admirably to the arch form of composition. It may be urged that the management of the subject is symmetrical; but then the works of most of the old masters are thus individualized. The eager, concentrated attention of Mr. Mock's group is also worthy of commendation.

Rob a magazine of its attractiveness to the reader and you kill it as a producer of sales for the advertiser. PHOTO-ERA has never been so treated, therefore all concerned are satisfied. We congratulate everybody — including ourselves.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS
With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

THE THAMES COLOR-PLATE

THE latest practical development in one-exposure color-photography is the new screen-plate known as the Thames, which is now obtainable on the English market. It is much like the Lumière Autochrome in conception and treatment, except that the color-screen and sensitive emulsion are on separate plates which must be bound in register after development, and, also, that the colors, instead of being scattered at random, are arranged in a predetermined pattern which gives exact proportions of each. Exposure is, of course, made through the color-screen, and the finished positive must, likewise, be viewed through it. This screen has the three primaries, red-orange, green and blue-violet, arranged upon it so that the first two named take the form of circles—the green a trifle larger than the red—and blue fills the interstices. Treating the wider interstice between the red and green circles, for the purpose of counting, as a circle, it will be found that the number of color-patches is 67,500 to the square inch. The plate used is of the ordinary panchromatic variety, although specially made for the purpose.

In loading the plate-holder, a black card is first inserted, then the plate—film side up—and above that the color-screen—glass side up. In this way screen and emulsion are brought into contact. Exposure is made through a special filter and the speed is greater than that of Autochromes. Several experimenters claim that the difference is from four to eight times; but it will be impossible definitely to determine this until the filters and screens are standardized by the manufacturers. In this connection it may be said that there is opportunity for improvement along these as well as other lines, just as there was in the case of the first Autochromes; but there seems to be a good basis to work upon and, like Messrs. Lumière, the makers will, doubtless, make further improvements in the way of uniformity of results and standardizing of material as soon as possible.

After exposure the plate is developed, reversed, redeveloped, fixed and washed much like the Autochrome. Intensification and varnishing, however, are not necessary. The resulting negative looks much like any, but when put in register with the color-screen again the image is shown in natural colors. The matter of registration is one which requires patience, but is not very difficult. At present, the chief trouble seems to be that the color-screens are not yet sufficiently uniform to make perfect registration in all parts of the plate possible; but this shortcoming will, doubtless, be avoided with improved methods of manufacture.

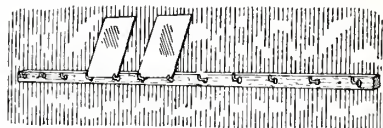
Scratched-in cross-marks are provided on the screens as an aid to registration, but until there is more uniformity of grain it is more satisfactory to work wholly by trial and inspection.

As has already been intimated, no standard light-filter has been adopted. Color-rendering seems to be in the main truthful, although some workers complain of not securing good purple or pure yellow, but indirectly both have been seen when not wanted, as a result of incorrect registration. Deep reds are uncertain, although many plates show too much red or too much blue. A good range of blues is secured from green-blue through ultramarine to indigo, and also fair reds from orange through vermilion to crimson. Grays and greens tend toward blue, but the browns are very good. All these variations, however, seem to point to the fact that success depends upon correct exposure and accuracy in the manufacture of the screens. The finished transparencies, being rather denser than Autochromes, are best viewed by artificial light, which is a further advantage in that it supplies a little yellow, which seems to be slightly deficient in the screen.

In conclusion, it may be said that, if this process is properly worked out and improved, there is every indication that it may be an important one commercially. It has a few natural characteristics which do much to recommend it. Among them may be mentioned the fact that an error of judgment in exposure wastes only the sensitive plate, the color-screen being unharmed and suitable for further use. Then, too, the emulsion of the sensitive plate, being an ordinary gelatine one, without an accompanying color-screen, and being thicker than an Autochrome, allows more latitude in exposure and finishing.

A RACK FOR DRYING NEGATIVES

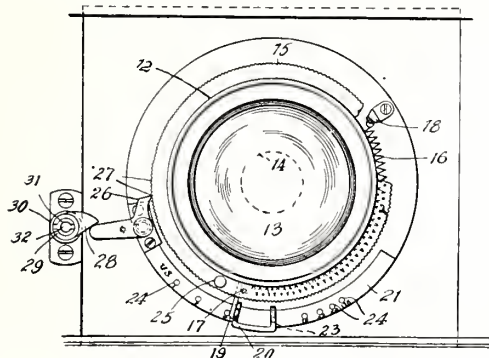
THE cut below supplies practically all the information necessary about the drying-rack suggested by W. J. Horner in a recent issue of *Photography and Focus*. The requisites are a strip of wood to fasten to the wall of the dark-room and a few screw-hooks. This method of drying is of advantage because it utilizes what is usually waste space, and also because the rack may be placed high up on the wall, where the negatives are out of danger of accident.



PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.



December 22, 1908

907,486. DIAPHRAGM-CONTROLLER FOR CAMERAS. DORR E. FELT, Chicago, Ill.

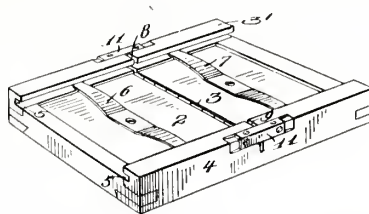
In cameras of the mirror reflecting-type a focusing-device is provided whereby the image is seen up to the time of exposure. A large aperture in the lens is desirable to give sufficient illumination for careful focusing, but frequently a much reduced aperture is necessary to secure sufficient definition in the photograph. The present invention relates to a mechanism which automatically changes the aperture as desired at the time of exposure. A coiled spring 16 has its opposite ends secured to a stud 17 in the rotary diaphragm-ring 15 and to a stationary stud 18 in the lens-mount, the tendency of the spring being to rotate the ring and reduce the size of the lens-aperture. The amount of rotation is predetermined by a stud 19 on the diaphragm-ring, which engages a movable clip 20, which may be set for any value of the lens. While focusing, the diaphragm is held open against the spring-tension by setting the ratchet 27. This is released by the cam 28, which is connected by a shaft and other suitable mechanism with the shutter-release, so that one pressure of the hand adjusts the diaphragm by the time the complete raising of the reflecting-mirror trips the focal plane shutter and makes the exposure.

907,515. MAGAZINE DEVELOPING-CAMERA. LOUIS MANDEL, Chicago, Ill.

A camera for carrying a plurality of very small sensitized plates and means for developing them as fast as they are exposed. The instrument is much like those now in use for taking dime portraits at beach and other resorts, except for improved interior mechanism for handling the plates.

907,592. PHOTOGRAPHIC PRINTING-FRAME. JOSEPH GODDARD, Rochester, N. Y. Assignor to Seneca Camera Mfg. Co., Rochester, N. Y.

By means of slots, 8 and 9, through both side-members of the printing-frame, into which the pintle of the hinge 3

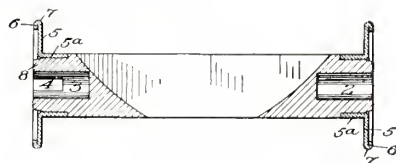


may project, all longitudinal shifting is prevented which would tend to destroy registration of the negative and partially printed sensitive paper when examined frequently. The countersunk metal cleats 11 strengthen the partially severed side-members.

December 29, 1908

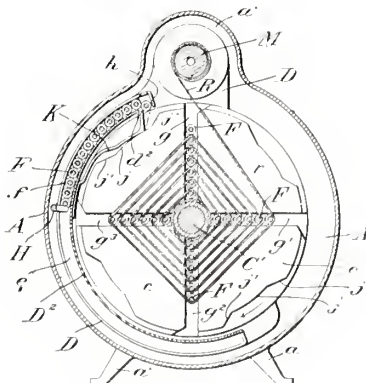
907,796. FILM-SPOOL FOR CAMERAS. JAMES H. HASTE, Rochester, N. Y. Assignor to Eastman Kodak Co., Rochester, N. Y.

The novel feature of this patent consists of the metal end-flanges of the film-spool, which are turned outwardly back upon themselves to provide a curved edge which will not cut the side of the spool-holder.



907,890. PHOTOGRAPHIC FILM DEVELOPING-MACHINE. EDWIN A. RUTENBER, Logansport, Ind.

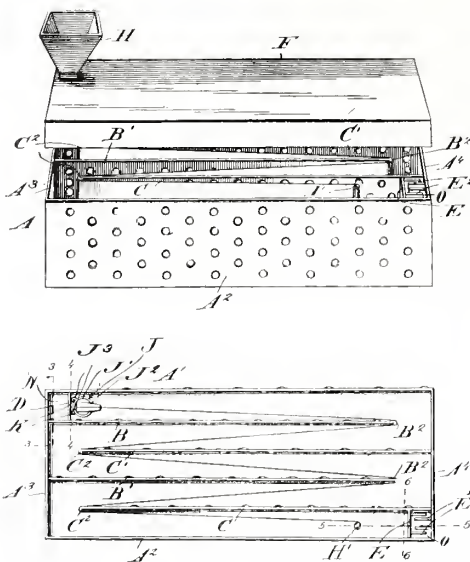
A device for daylight development and fixation of roll-film by means of rotation in the solutions. The principle is similar to that of the Kodak Developing-Machine, but the



details are worked out in a very different manner. The apparatus consists of a tank within which is a revolving reel onto which the film is wound from the spool M. The flanges of the reel are slotted to receive spacing-rods F, serving to keep the coils of film apart, which are fed by gravity from a spring-actuated magazine. The cross-section shows the arrangement of the rods when the film is partly wound onto the reel. The ends of the tank are vertical, and one of them is in the form of a removable liquid-tight door, to which the whole interior mechanism is attached so that it can be removed from the tank A. Solutions are admitted through a spout in one end.

907,942. DEVELOPING, WASHING AND FIXING-BOX. W. F. ZIERATH, Sbeboygan, Wis.

The tank and partitions are made of metal having indentations and projections in their sides to hold the film away and allow free circulation of solutions. A light-tight inlet is provided below the spout H and also an outlet at the diagonally opposite corner. The film is drawn around the



partitions in the manner shown. The developer or fixing-bath enters on each side of the film through perforations in the receptacle N, passes around the partition and out through the receptacle O. As there is free flow through the box, it may be used for washing after the developer and fixing-bath have been successively poured off.

908,017. PRODUCTION OF ARTISTIC DESIGNS OF PICTURES. Émile Laporte, Fribourg, Switzerland.

It is the purpose of this invention to provide a method of producing photo-engraved copper and zinc plates and lithographic stones for printing pictures imitating the effect of etchings without the services of an engraver to cut away the excess metal. Sheets of celluloid or a transparent gelatinous substance are first given a grain, coarse or fine as de-

sired, in order that the design may be traced upon them with pencil, charcoal or ink. This is done by specially prepared rollers. On this surface the artist draws his picture, the grain serving as a tooth to his pencil and giving the sketchy effect of drawing-paper. It now becomes necessary to fix the crayon, whatever it may be, causing it to adhere to the celluloid and also to restore the primitive transparency of the celluloid, lost in the rolling-process, in order that light may pass through it. This is done by immersion in a bath of acetone or alcohol, after which printing-plates are prepared from this design in the ordinary way.

908,036. PHOTOGRAPH CABINET. RUDOLPH H. RIPPING, Aurora, Ind.

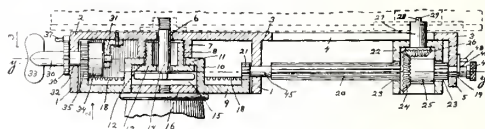
An attractive table-like piece of furniture with doors on its four sides hinged at the bottom so that they may be turned down, giving access to an album of sample photographs fastened to its inner side. By this means a great many photographs may be kept in small space.

908,064. APPARATUS FOR PHOTOGRAPHERS' USE. WILLIAM BECKER, Chicago, Ill.

A portable dark-room, provided with a ruby window and armholes, not greatly different from those already in use. Its chief advantage is that it folds into very compact form when not in use.

908,091. PANORAMIC ATTACHMENT FOR CAMERAS. F. F. GROFF, Lancaster, Penn.

By means of this pocket device any size of film-camera is converted into a panoramic outfit. It is attached between the camera and tripod-head, as shown in section, and by means of the spring motor 34 is adapted to revolve the cam-



era partly or completely upon a vertical axis and supporting-plate 9, the teeth of which engage the drive-gear of the motor 35 and a pinion 21. This pinion rotates a shaft 20, the bevel gears 24 and 26, as shown and the post 27 terminating in the lug 28, which enters the bottom of the camera and engages a slot 29 in the bottom of the film-spool, thus unrolling the film as the camera revolves. The extending arm 3 is slotted at 4 so that the gear-case 22 may be moved along the toothed shaft 20 to conform to any size of camera. Suitable starting and stopping-means are provided, so that the arc of the circle to be traversed may be predetermined.

908,196. PHOTOGRAPHER'S FLASH-LAMP. PAUL BAUER and RICHARD VILIM, Chicago, Ill.

A compact and ingenious adaptation of the familiar alcohol vapor and platinum wire cigar-lighter. The lighter forms the upper end of a cylindrical tube, while the lower provides a reservoir for flash-compound and storage space for the firing-chamber, which is inserted above the lighter for use. In the floor of this chamber are three small holes through which the flame ignites the powder upon the falling of a protecting shield below, operated by an easily removable peg.

908,355. PHOTOGRAPHIC SHUTTER. WILLIAM TAYLOR, Leicester, England.

A shutter for giving time or instantaneous exposures of different lengths by varying the time during which the shutter remains fully open. A spring separate from the motor-spring is used to operate the timing-device, and the tension of this spring may be adjusted so as to give a definite exposure for a given amount of movement of the pneumatic piston timing-device. At the same time the piston is relieved of the shock due to arresting the motion of the shutter; and its motion being controlled more by leakage of air and less by its elastic action, accurate timing of short intervals is thereby improved. The four leaves of the shutter form the diaphragm of the lens, the size of which is governed by a setting-device which limits the extent of motion.

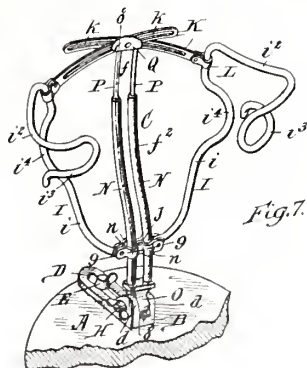
January 5, 1909

908,531. FILM-PACK HOLDER. ALBERT H. WRIGHT, Quincy, Mass.

A design for simple kits to fit the largest size of Film-Pack holder, by means of which packs of smaller size may be used. The smaller packs are brought into the same focal plane as the larger ones, and are so placed in the holder that individual films can be removed the same as those of the larger packs.

908,800. PHOTOGRAPHIC POSING-DEVICE. FREDERICK W. C. POHLE, Buffalo, N. Y. Assignor to Pohle-Werner Mfg. Co., Buffalo, N. Y.

This patent covers improvements in the invisible baby-holder. The cut shows without further description its various adjustments by means of which it may be made to conform to the back of the child and furnish a comfortable support without cramping or pressing. The curved rods 12 are intended to rest below the arm-pits of the child and furnish support for a considerable portion of the body.

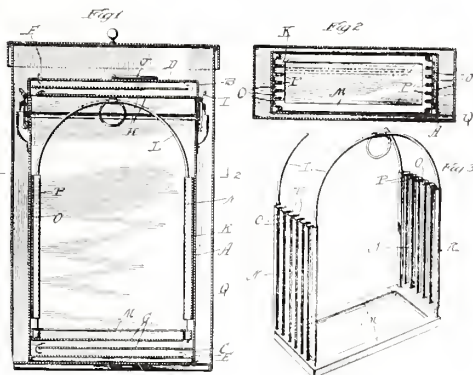


908,892. PHOTOGRAPHER'S DARK-ROOM. VICTOR SEKINGER, Jeannette, Penn.

A portable cabinet dark-room provided with a ruby-lamp, observation-window and armholes, similar to apparatus of this sort now in use. Compactness is its chief feature, accomplished by the fact that it is constructed in the form of two box-like members which telescope one within the other when not in use.

909,090. PHOTOGRAPHIC DEVELOPING-APPARATUS. DAVID JAMES, Chicago, Ill.

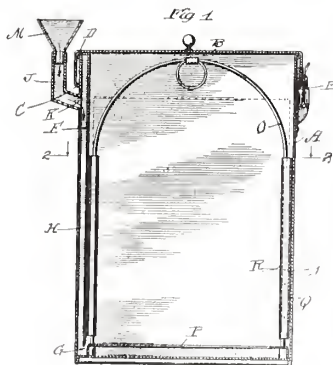
The cut shows the apparatus to be a light-proof tank for developing glass plates. It consists of a rack K which carries the plates in pairs back to back for economy of space and solution. The rack fits into a receptacle A having openings E and F to admit liquid, which must take a zigzag course around the staggered plates forming the light-proof top and bottom. Its two parts are fastened together by latches I, and the whole is then placed into the receptacle Q, which contains the developer. Afterwards A is removed and dipped in water several times to rinse the plates. The fixing-bath



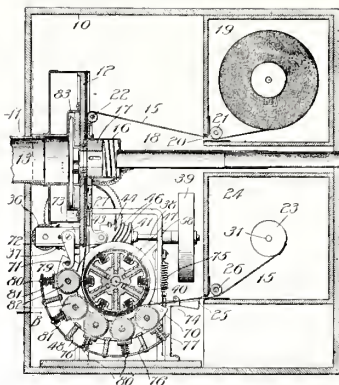
is now substituted in Q and A is reinstated and allowed to remain for a proper time, after which the bath is poured off and the whole outfit placed under a faucet to wash the negatives. From start to finish it is not necessary to handle the plates.

909,091. PHOTOGRAPHIC DEVELOPING-APPARATUS. DAVID JAMES, Chicago, Ill.

This tank is much like the one just described, but, being itself a container of liquid, only one receptacle is required.



The solutions must enter through the long passage H, so no light is admitted and the binged cover is also made light-proof. The plate-rack is the same as for the other tank. By using a changing-bag and either one of these tanks no dark-room is needed.



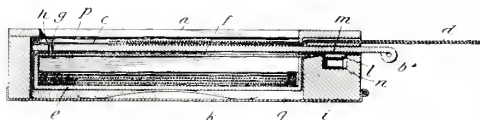
January 12, 1909

909,404. MOVING-PICTURE MACHINE. ADOLPH F. HAMACEK, Chicago, Ill.

Reference to the sectional diagram shows that the chief feature of the apparatus is a friction-feed device which does away with the necessity for perforations in the film, which cause jerking of the film and consequent jar of the image, as well as wearing and even tearing of the film as the driving-prockets are withdrawn from the perforations. A worm-gear 46, suitably connected with the operating-crank, drives the wheel 47, around which the film passes as shown, being held against it by the spring-pressed rollers 82.

909,459. DEVICE FOR EXPOSING LIGHT-SENSITIVE LAYER-CARRIERS. JOSEPH SCHMUCK SIEGLITZ, Assignor to Optische Anstalt C. P. Goerz Actiengesellschaft, Friedenau, Germany.

This piece of apparatus, shown in section, consists of a box somewhat like a plate-holder and having an exposure-opening at *a*. The hinged door *i* gives access to the box and



through it the receptacle for holding exposed films *e* is inserted with the pins *g* on its shutter-slide *f*, extending into the holes *h* of the change-slide *b* and held in place by the spring *k*. The film *c*, enclosed in a light-proof envelope *d*, is inserted above the change-slide, the envelope is drawn off and the exposure is made. The change-slide is then withdrawn, carrying the shutter-slide *f* with it, so that the film can fall into the receptacle *e*, after which the slides are closed and another film inserted above as before. The slides are made light-tight the same as any plate-holder. The receptacle *e* can be removed and replaced by another in daylight.

909,543. ADJUSTABLE FILM-ROLL HOLDER. WILLIAM J. BREMAN, Washington, D. C.

This device makes it convenient to print films from the strip without cutting into sections. An ordinary printing-frame corresponding to the largest size film in use is employed, and, as the holding-device is adjustable, any smaller

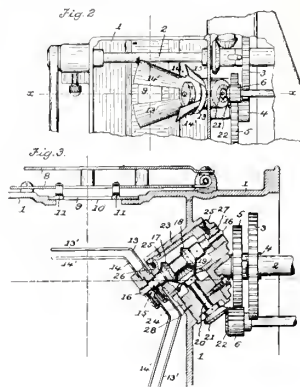
width may be used. Similar holders are provided at each end of the printing-frame, one for the carrying and the other for the receiving-spools. These are prevented from accidentally revolving by serrations in the spool-flange which engage a stationary spring-tongue, that the film may be stretched tightly across the frame between them. Thumb-screws, which engage the usual slotted ends of the film-spools, are provided with which to turn any desired negative into position.

909,639. PHOTOGRAPHIC PRINTING-FRAME JAMES C. MORGAN, Ripley, W. Va.

This frame is designed chiefly for printing single images from a plate on which several negatives have been made, as is sometimes done in portrait work. Four images on one plate is the common custom. Three of the images are, therefore, blocked out by a removable shutter made in two parts, one of which covers half the whole plate; the other, one-quarter. These have light-tight flanged edges and are fastened into the frame in front of the negative by means of pivot-latches. By varying the position of this shutter any one of the four images may be left exposed behind the opening, or, if desired, half of the whole plate may be exposed at once. Another feature of the frame is a spring-actuated strip which holds the negative firmly in position just as a plate is held in the ordinary plate-holder.

909,677. SHUTTER MECHANISM. ALVAH C. ROEBUCK, Chicago, Ill.

A duplex light-controlling shutter for intermittent-feed type of kinetoscopes, by means of which the opening and closing of the light-aperture is effected across its narrowest width and in a plane parallel to the aperture, whereby greatly decreasing the period of non-exposure. Reference to the Fig. 2, a detail front elevation, and Fig. 3, a horizontal section, shows the light-opening 9, behind which the shutter-blades 13 and 14, of the truncated cone form, revolve in opposite directions so as to close the aperture from top to bottom at the same time. In this way but little light is lost in the closing of the shutter preparatory to the moving of the film, and there is but little flicker. The shutter-blades revolve around a common axis, the member 13 being carried by a tubular shaft 15, within which is a central shaft 1 carrying the member 14. These are operated by the bevel gears 17 and 18, which are driven by suitable gearing from the main operating-shaft of the kinetoscope 2.



NOTES AND NEWS

Announcements and Reports of Club and Association Meetings,
Exhibitions and Conventions are solicited for publication

THE PHOTOGRAPHIC CLUB OF BALTIMORE

FOURTH ANNUAL PRIZE-PRINT COMPETITION

EXHIBITION will open March 16, 1909.

All prints must be entered by March 2, 1909, and must be entered in one of the following classes; namely first class, Landscape and Marine; second class, Genre and Portraits; third class, Miscellaneous.

Members are limited to six prints, mounted, but not framed, in each class. As there will be no jury of admission, all prints as above allowed will be hung.

One Gold, one Silver, and one Bronze Medal will be awarded in each class, provided there are six or more exhibitors in the class. If there are four or five exhibitors only two medals will be awarded; if three or less exhibitors, one medal. The judges, who shall not be members of this club, are to decide what grade of medal or medals shall be awarded, and whether the exhibit in any one class is up to high enough standard to award any medal.

Members who received medals in last year's competition will be eligible to receive only a medal of higher grade in such class or classes in which they have been recompensed.

One Gold Medal of Honor shall be awarded to the best print in the exhibition, for which all members are eligible, but the recipient shall not receive in addition to this the first prize in its class. This shall go to the next best picture in the class.

Prints of members who have been previously medaled will be marked "Medaled," with the date and grade of the medal.

CAMERA CLUB OF NEW YORK

It was the good fortune of the editor to attend the lecture on Spain by Frank Scott Gerrish, a member of the club, on the evening of January 8. The lantern-views, especially those depicting the wonders of the Alhambra, were remarkable for the truth and beauty of coloring, and the entertainment gave intense pleasure to the assembled guests—about one hundred and fifty in number. The walls of the handsome and spacious auditorium—exhibition-hall—were graced by numerous photographic views of Mount Wilson and the surrounding country taken by Professor Ferdinand Ellerman, of the Carnegie Institute of Washington, which were viewed with interest after the conclusion of the lecture. The members present then guided their guests through the club's magnificent quarters, which for convenience and attractiveness, utility and completeness, challenge admiration and may be regarded as unmatched

by any photographic society in existence. On January 15 a lecture, "Our Wild Neighbors," was given by Mr. Ernest Harold Baynes, illustrated with one hundred lantern-views made from negatives by the lecturer. In appreciation of Mr. Baynes's reputation as a photographer and lecturer, a large audience was in attendance and fully enjoyed the superb entertainment. Thus it will be seen that the New York Club is decidedly in the running, and that its policy to supply strictly high-class lectures, and at frequent intervals, to its members and friends should be emulated by other photographic clubs.

ANNUAL DINNER OF THE P. A. OF N. E.

THE annual love-feast of this body took place on the evening of January 28, in the banquet hall of the Café Louis, Boston. The committee had hoped to take advantage of the presence in town of many members who had come from a distance to attend the Eastman School of Professional Photography, held in this city January 26 to 28. Unfortunately, many of these visitors from afar had made other arrangements previous to coming to Boston, and others were beguiled into visiting theaters and other places of amusement. For these reasons, the participants in the banquet numbered only fifty; but it was an assembly of sufficient size to have a good time and to enjoy the most savory dinner ever served on these occasions. The repast was a work of art, in its way, and was fully enjoyed by every one. Mr. Arthur A. Glines, the veteran photographer, was chairman, and he appointed the honest and eloquent Hon. S. M. Holman, of Attleboro, Mass., as toastmaster. Among the speakers were second vice-president of the National Association, J. H. C. Evanoff; President William Webster and Secretary George H. Hastings of the New England Association; Orrin Champlain, manager of the Marceau Studio, Boston; J. S. Cummings and Milton Wade of the Eastman Kodak Co.; H. D. Haight of the Robey-French Co.; W. P. Edgar of *The Christian Science Monitor*, and Willfred A. French, editor of PHOTO-ERA.

BENJAMIN W. KILBURN

THE above-named veteran photographer, one of the oldest and widest known makers of stereoscopic views, died at his home, Littleton, N. H., January 15. The firm of Kilburn Brothers was known throughout the world as the makers of very excellent stereoscopic views, especially of the White Mountain region, which, not so very many years ago, were to be found in company with the family Bible and photograph album in nearly every household throughout this country and Canada.



J. E. MOCK

EXECUTIVE COMMITTEE P. A. OF A.

Right to left: Frank R. Barrows, president; G. W. Harris, secretary; A. T. Proctor, first vice-president; J. H. C. Evanoff, second vice-president; L. A. Dozer, treasurer.

THE ROCHESTER CONVENTION OF P. A. OF A.

THE Executive Committee of the Photographers' Association of America met in executive session in Rochester, N. Y., Jan. 12, 1900, to prepare for the twenty-ninth annual convention to be held in that city, July 19, 20, 21, 22, 23 and 24 next. Among the important features adopted are the following:

A school of photography, with practical demonstrations by leading American photographers.

A day devoted to visiting the local photographic industrial establishments.

A general discussion regarding the suggested revision of the Constitution and By-Laws.

An award of \$100 in cash for the best invention, process or appliance relating to photography which has not before been exhibited at a national convention.

A complimentary, non-competitive exhibition of photographs in which eminent amateurs will be invited to participate. Association-prizes are to be dispensed with entirely this year. This eliminates all danger of friction and petty jealousies that might otherwise result.

President Barrows's progressive policy was also evidenced by his appointment of a committee of three members of the National body, who purpose attending the International Photographic Exposition at Dresden, Germany, to represent, officially, the P. A. of A., at that meeting.

The Seneca, the finest hotel in Rochester, was chosen as official headquarters of the convention.

THE COMPLIMENTARY EXHIBIT

Prints intended for the pictorial display (complimentary exhibit) must not exceed six. No other restrictions. They must be sent, all express-charges prepaid, to A. T. Proctor, first vice-president, care of Convention Hall, Rochester, N. Y., to arrive there on or before July 10, 1900.

Applications for space to be made to A. T. Proctor, Huntington, W. Va.

Prints of any contributor who does not conform to these rules will not be accepted.

While the association will not be responsible for any loss of or damage to pictures in its charge, special precaution will be taken to ensure the safe return of all exhibits.

No exhibit shall be removed from the hall until the convention is over, except with permission of A. T. Proctor, chairman of the Hanging Committee.

Every member of the Executive Committee was present (see group by J. E. Mock). The accounts of the treasurer and secretary were audited by Messrs. Dozer and Harris and found to be correct. The treasury is in excellent condition, the balance on hand, Jan. 1, 1909, being \$4,608.74. It was suggested that each of the various organized bodies of professional photographers be invited to send one delegate to the Rochester Convention to propitiate the affiliation of the national and other photographic societies for the purpose of advancing their common interests. All inquiries in regard to the convention should be addressed to the secretary, G. W. Harris, Washington, D. C.

ELMIRA CAMERA CLUB

At a meeting of the Elmira Camera Club, Elmira, N. Y., held Jan. 7, 1909, the following-named officers were elected for 1909: H. T. Stagg, president; Prof. W. H. Davis, vice-president; W. E. Bryan, secretary and treasurer; F. Scharf, G. B. Nicewonger and H. E. Snyder, Board of Directors.

The club has shown considerable progress. Several important improvements have been made within the past year, such as a new print-display case at street-entrance to the club, also a portrait-camera with which several of the members have become quite proficient—due largely to the excellent lighting-facilities in the studio connected with the rooms. An enlarging-room has been added and considerable bromide enlarging has been done, particularly in photomicrography, in which several of the members are interested. The club is now installing a lantern for lantern-slides to be given in the rooms this winter.

CONVENTION OF THE O.-M. P. A.

STATE conventions are competing with each other as never before. Here is the Ohio-Michigan Photographers' Association announcing its sixth annual convention, March 23, 24 and 25, 1909, at Toledo, O., and offering inducements which nearly rival those presented by the National Association.

There will be expert demonstrations on portraiture by electric and flash-light; skilful retouching, etching and other work on negatives, and members are invited to bring one of their own negatives for illustration; practical talks on reception-room methods, business-questions, etc., by successful practitioners, and other useful and profitable features.

Medals will be awarded as prizes, including a Grand Prize—all open to members—and a Grand Portrait-Prize, *open to the world*. A \$50 cash prize will be given for the best new and original invention or idea shown and demonstrated at this convention. The pictorial dis-

play will comprise work by eminent men throughout the United States, and include a full set of prints from the prize-winning negatives of E. E. Dofy. Each member of the Executive Committee is bubbling over with enthusiasm, and there is every prospect that the event will be creditable in every way. The officers are E. G. Herrick, president; E. E. Doty, vice-president; E. B. Campbell, vice-president; Thos. Palethorpe, treasurer, and W. A. Triplett, secretary.

CONVENTION OF THE I.-M. P. A.

THE Inter-Mountain Photographers' Association will hold its second annual convention at Salt Lake City, Utah, on April 5, 6, 7 and 8, 1909. The officers are L. F. Griffith, president; Leo Hafen, vice-president; F. H. Sturgis, vice-president, and F. E. Scott, secretary and treasurer.

THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES

THIS important institution of learning now occupies new and magnificent quarters in the Brooklyn Academy of Music Building, which has only recently been finished. The department of photography is located on the top floor, and occupies a suite of rooms which are commodious and completely equipped with up-to-date working-apparatus, technical rooms, lockers, etc. To celebrate the event, an opening exhibition of work by members was held January 11 to 16—which consisted of prints representing the highest pictorial ability of the club. The printing-mediums included gum-bichromate, gum-platinum, platins and bromides.

The regular annual exhibition will be held, as usual, in April, at the Art Rooms in Montague St., Brooklyn, N. Y.

BUFFALO SECTION NO. 6 OF THE P. P. S. OF NEW YORK

THIS active body of professional workers held a meeting Jan. 25, 1909, at the studio of Howard D. Beach, Buffalo, N. Y. There was a large attendance, among those present being Messrs. Bradley and Bliss, respectively president and vice-president of the State society; also, Messrs. MacDonald, Core, Colonel Marceau, of New York; Messrs. Mock, Saunders and Harscher, of Rochester; Messrs. Camp and Craven, of Jamestown, and many others; also, ladies of Buffalo members. A musical entertainment and refreshments were furnished; and Mr. Rohlis spoke on art topics. The grand feature, however, was the usual print-exhibit, in which the work of Mock, Saunders, Harscher, Camp, Craven, Goldensky, Ellis, Phillips, Eliott, Garo, Parkinson, Strauss, Bradley, Falk, Hoyt, Marceau and MacDonald was shown. Much interest was manifested in Mr. MacDonald's print which was hung recently in the exhibition of the Royal Photographic Society, London.

THE RAMBLER'S PHOTOGRAPHIC PRIZE COMPETITION

THE first important prize contest of the year is announced by Thomas B. Jeffery & Co., manufacturers of the Rambler Automobile. For full particulars please consult their advertisement in this issue. The sum of \$100 will be divided among the successful competitors, and it is a pleasure to state that the contest will be conducted in a manner worthy of the confidence of every participant.

It is the policy of PHOTO-ERA — inaugurated several years ago — to endorse or recommend no specialty, product or enterprise unless it merit absolute confidence, a procedure obviously not calculated to swell its advertising-pages. We are happy to state that the Rambler contest deserves to be favorably considered by every amateur desirous of winning a cash prize, the amount of the award being commensurate with the excellence and advertising value of the successful print. To ensure safe transportation the prints should be carefully enclosed between stiff, corrugated boards, with the ridges running in opposite directions, or in a safe and desirable mailing-device.

BOSTON CAMERA CLUB

AN important Interchange Exhibit at the club rooms early in January was that of the Photographic Society of Philadelphia. Several members of the organization were well represented, particularly C. Yarnall Abbott and Maurice T. Fleisher. Both had six prints of a decidedly original character. Among those by Mr. Abbott, the portrait of F. Holland Day, "The Swing," "The Dancer" and "Dawn" — a nude — were most noteworthy. Mr. Fleisher's "Japanese Landscape" and "In Old Canterbury" had the charm of the unusual and the pleasing pictorial quality typical of his work. Elias Goldensky showed a head of a young girl, which was a fine piece of portraiture, and E. H. Smith had to his credit a landscape well composed and full of atmospheric quality, entitled "A Misty Morning." Other important exhibitors were Walter Zimmerman, B. F. Haywood Shreve, Richard Witt, J. W. Nicholson, W. G. Littleton, R. T. Dooner and Wm. H. Castle.

Following the exhibit of the Philadelphia Society was that of the Photographic Club of Baltimore. Of the sixty prints shown several were of uncommonly high artistic quality, Dwight F. Boyden's winter-scene entitled "Snowshoe Tracks," in particular, and by far the best picture in the entire collection. It was very original in subject and beautifully composed, with the feeling of intense cold admirably interpreted. "The Coming Storm," by the same artist, was a very impressive picture, but did not seem quite to carry out the meaning of the title. A landscape (No. 52) entitled "Quiet Waters," by Charles A. Muller, was delightful in quality and composition. Mr. Muller, also,

showed some pleasing genres. There were also some good portraits by R. L. Harris.

The annual meeting of the club was held Monday evening, January 4. The officers elected for 1909 are: president, Phineas Hubbard; vice-president, A. E. Fowler; secretary and librarian, J. H. Thurston; treasurer, C. H. Chandler. The Executive Committee consists of G. R. Fisher, C. F. Hildreth, W. L. Manson, S. B. Read, F. A. Sanderson and W. H. Wing.

The club will open its annual exhibition March 1; and members intending to compete are asked to begin preparations now.

THE CRAMER PRIZE-CONTEST

THIS notable competition of G. Cramer Dry-Plate Company, for the best negatives made by amateurs on Isochromatic plates, was decided Jan. 26, 1909. The judges were C. B. Woodward, amateur and connected with the Woodward & Tiernan Printing Company, color-engravers; F. A. Raymer, photographic expert, and J. Ed. Rösch, eminent photographer and past president of the P. A. of A. The prizes were awarded as follows: 1st, \$100, entry 5124, J. L. Hopper, Highland, N. Y.; 2d, \$75, entry 18, H. W. Spooner, Gloucester, Mass.; 3d, \$50, entry 8230, C. W. Mahneke, New York City; 4th, \$25, entry 6138, F. R. Altwater, Newport, O.; special, \$25, Mrs. Nancy Ford Cones, Loveland, O.; 5th to 14th, \$5 worth of Isochromatic plates to 8216, M. J. Pope, Naugatuck, Conn.; 9292, H. E. Harnden, Phillips, Me.; 9313, Annie M. Sullivan, Oakland, Cal.; 2, T. W. Kilmer, M.D., New York City; 6209, A. Schweizer, New York City; 9339, Mrs. A. F. Foster, Wyoming, O.; 40, F. J. Riggs, Worcester, Mass.; 7160, W. S. Cable, Oak Park, Ill.; 5114, Z. Veren, New York City; 9344, G. H. Scheer, M.D., Sheboygan, Wis.

The company expresses its entire satisfaction with the verdict of the jury, the results of the contest and the great number of entries. We expect to reproduce in our next issue some of the successful prints, together with interesting details. This will afford our readers an opportunity to compare the results of an ordinary dry-plate with those of an Isochromatic plate.

CHICAGO CAMERA CLUB

It is a healthy and welcome sign when rivalry exists between camera clubs. This condition is gratifying, although it cannot be denied that a few scattering clubs are dying for lack of energy and enterprise. Among the active of the large and progressive societies is the Chicago Camera Club. During the month of January it gave its members and friends four admirable entertainments, as follows: January 7, Toning Bromide Prints, by Mr. Geo. Alexander (various methods were demonstrated); January 14, Combination-Printing, by Mr. Geo. C. Elmberger (a simple and efficient method); January 21, exhibition of lantern-slides from the Wisconsin Camera Club were shown; January 28, Making Enlarged Negatives, by Geo. C. Elmberger.

BOOK REVIEWS

COMPOSITION IN PORTRAITURE, by Sidney Allen.

With one hundred and thirty-six illustrations and numerous diagrams. Price, \$3.00, post-paid. Edward L. Wilson, New York.

There are many books on composition in general and portrait composition in painting, but there has long been need for a volume on the composition of the photographic portrait by one competent to handle the subject. In this respect the present treatise seems to fill all requirements; it is written in an interesting manner and its contents is thoroughly practical and helpful. Constant reference is made to the methods of eminent and successful photographers both here and abroad, while the important points in the text are illustrated by reproductions of famous photographs and paintings. Altogether, it is a work which should find a place in the library of every portraitist, professional or amateur.

SELF-INSTRUCTING LIBRARY OF PRACTICAL PHOTOGRAPHY. Edited by J. B. Schriever and Thomas H. Cummings. Half-leather binding, marble tops and sides. Prices and prospectus upon application. The American School of Art and Photography, Scranton.

Five of the eight volumes comprising this much-talked-of set of reference-books have been issued, and the other three will follow shortly. It is intended that the complete set shall cover practically the whole field of photographic picture-making, and the arrangement of matter is such as to form a logical and systematic series of graduated lessons for self-instruction. The style of the letter-press is simple and direct, so that all who read may understand, and is adapted alike to the needs of professionals, semi-professionals, expert amateurs and beginners who wish to know more of their art and to perfect themselves in it. Aside from the self-instructing feature, however, these volumes fill the need for a reference library containing reliable formulæ of all sorts, a list of difficulties likely to be encountered, preventives and remedies. This vast amount of data is based upon the actual experience of every department of the American School of Art and Photography in instructing thousands of students all over the world, and hence is of a thoroughly practical character and broad in its treatment of varied conditions. A full index is provided for each volume and, as the paragraphs are numbered, all this information is quickly available. The illustrations, of which there are many, are by the leading pictorialists of America and furnish excellent examples in art and technique for the student to follow.

Volume I is almost entirely for the beginner, treating nearly the whole subject of photography in an elementary way and employing many illustrations to show correct and incorrect methods of procedure and the results. This volume, like all the others, contains complete data regarding all the photographs reproduced.

Volume II is devoted to an exhaustive treatment of the methods of development and after-treatment, with diagrams, formulæ, tables, poisons and antidotes, etc.

Volume III covers the broad subject of general outdoor photography, with valuable sections on composition and the construction and use of the lens.

Volume IV takes up in detail the more commonly used methods of printing, with a chapter on mounting. Special attention is given to gas-light papers.

Volume V treats a variety of subjects, including home portraiture, flashlight, interiors, copying, enlarging and lantern-slides. Of the books to appear later, Volume VI covers studio portraiture and system; Volume VII, retouching, etching and modeling; Volume VIII, scientific, commercial and color-photography.

MR. EASTMAN'S MUNIFICENCE

SOME men of wealth are prone to be ostentatious in their dispensations of charity; others indulge this Christian virtue without a desire to attract attention. Thus we learned, wholly by accident, that George Eastman, head of the great corporation bearing his name, had recently contributed the sum of \$400,000 to the City Hospital, Rochester, N. Y. When the announcement of the donation was made by a Rochester paper Mr. Eastman was on his way to Europe.

WYOMING VALLEY CAMERA CLUB

THIS club announces its eighth annual exhibition of pictorial photography to be held in May. All pictures must be received before April 17. Entry-blanks will be sent upon request by the secretary, Will D. Brodhun, 267 South Main St., Wilkes-Barre, Penn.

EASTMAN SCHOOL OF PHOTOGRAPHY

THIS traveling school of photographic education gave a series of public demonstrations at 34 and 36 Bromfield St., Boston, January 26 to 28, which afforded the photographers of New England a much-coveted opportunity to acquire practical and reliable information regarding the latest photographic processes. The attendance on each day was large and enthusiastic and the demonstrations were of the usually high technical character. They were conducted by various experts of the company, who treated such important subjects as lighting and posing by electric light, tank development, Nepera, Carbon Sepia and Ozobrome papers, Polychrome plates, bromide enlarging, negative-retouching and a series of printing-room dodges, devices and ideas with signal ability. The visitors were loud in their praises of these splendid opportunities for the practical improvement of their work and the manner of conducting their business.

A neat and tidy studio presages a neat and tidy photograph.

WITH THE TRADE

SENECA POCKET-CAMERA

THE Seneca Manufacturing Company, Rochester, N. Y., has recently put upon the market its Pocket Seneca No. 3-A camera, made principally for post-card work, the print measuring $3\frac{1}{4} \times 5\frac{1}{2}$. This very handy and practical camera is provided with an R. R. lens, automatic shutter, rack and pinion and rising and falling lens-front, listed at \$14, besides being guaranteed by the makers.

A NEW ANSCO BRANCH

THE Ansco Company of Binghamton, N. Y., has recently opened an office at No. 171 Second St., San Francisco, Cal., where is carried a large and complete stock of Cyko Papers and Postals in their various grades; also Ansco Films, Ansco Film-Cameras, Developers and other Ansco specialties. The company intends to give the very best service possible from this branch, and supply dealers throughout California, Arizona, Nevada and points intervening as far east as Salt Lake City.

This bit of news will doubtless be received with great pleasure by all of the independent dealers on the coast, and when taking into consideration that Woodard-Clarke & Co., Portland, Ore., and Gailey Supply Company, Seattle, Wash., will continue to act as distributors, the consumer will have little cause to complain in future about not getting Ansco products from near-by depots.

Mr. C. B. Stanbury, vice-president of the Ansco Company, will remain in charge there for some time, as it is his desire to get the branch thoroughly organized and established before returning East.

STANDARD CHEMICALS

AMONG the best known manufacturing-chemists in the United States is the Bowers-Weightman-Rosengarten Company, of Philadelphia. This firm is also one of the oldest — perhaps the oldest in its line — in this country, having been established in 1818. It has been long and favorably known for the excellence and purity of its products, which, even to-day, represent the highest possible standard. This fact is most thoroughly appreciated by the photographer, who esteems the firm's nitrate of silver, chloride of gold and all other important chemicals necessary in his profession, knowing the danger of using cheap, inferior chemicals, and that the best are none too good.

DIFFUSION AND ATMOSPHERE WITH PORTRAIT-LENSES

ONE of the claims made in behalf of the little f/5 portrait-lens, made by the Standard Optical

Company, of Newark, N. J., is artistic diffusion and atmosphere, which characterizes the modern, up-to-date portrait-lens. Portraitists interested should send to the above-named firm for a price-list. The manufacturers will also send the lens on trial to responsible persons.

PORTRAIT OF PRESIDENT TAFT

PHOTO-ERA is probably the first magazine to publish a portrait of our new president in which, appropriately enough, an expression of power, dignity and intellectual force replaces the familiar look of mirth and bonhomie which marked the campaign-portrait.

The honor of producing this splendid likeness belongs to George G. Rockwood, the veteran photographer of New York. He employed for this purpose a No. 8 series III, Goerz lens. Copies of this portrait, size 8 x 10, printed on Aristo Platino paper and tastefully mounted, can be had by members of the craft of Mr. Rockwood, No. 537 Fifth Ave., New York, at \$1.00 each.

MR. MOCK'S SECRET

AMONG the men who grace the photographic profession on account of their artistic ability, business success and high moral character is J. E. Mock, of Rochester, N. Y. Through his rollicking good nature he has won the sobriquet of "Smiling Jim." His portraits are notable for their strength and conviction, and reflect the personality of the artist. They have also attracted attention by their superb technical qualities, his sepia prints, especially, possessing a delightful and mysterious brilliancy and a rich depth in the shadows without any perceptible gloss, which have caused much speculation among all who have noticed it. Mr. Mock himself has divulged the secret. He applies a special varnish of his own make, and which he offers to his fellow-workers. The price is \$1.00 a bottle, and it is good for about six hundred 5 x 7 prints. His ad. in this issue tells the rest.

ANSCO FILM-PLANT TO MOVE

THE people of Binghamton are justly pleased to know that the film-plant of Ansco Company, now located at Jersey City, will shortly be moved to new quarters at Binghamton, where the other products of the concern are manufactured. This will provide employment for additional skilled workmen and will be the means of making another great photographic center in New York State. Centralization will probably prove beneficial to Ansco Company as well, so that it seems to be a good move in every way. The growth of this concern has been phenomenal, especially in view of the recent financial depression.

PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXII

APRIL, 1909

No. 4

PUBLISHED MONTHLY BY WILFRED A. FRENCH, 383 BOYLSTON STREET, BOSTON
Entered as Second-Class Matter, June 30, 1908, at the Post-Office at Boston, under the act of March 3, 1879

YEARLY SUBSCRIPTION - RATES

United States and Mexico, \$1.50. Canadian postage, 35 | Foreign, \$2.25. Single copies, 20 cents each. Always
cents extra. Single copies, 15 cents each payable in advance

ADVERTISING-RATES ON APPLICATION

WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our careful consideration. While not accepting responsibility for unrequested contributions, we will endeavor to return them if not available, provided return postage is enclosed.

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DAVIS AND EICKEMEYER
A VISION



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Pictorial Possibilities in Moving-Pictures

C. H. CLAUDY

IF it were just as easy to make things beautiful as to make them ugly there could be no excuse but lack of taste, of knowledge of what is beautiful, or lack of morals, for failure to produce that which is artistic. As it is harder to make a thing beautiful than to make it any way it happens, as beauty in anything made by hands must comply with a standard set either by our conception of what is beautiful in nature or by our own man-made — sometimes, machine-made — laws of beauty, there are many good excuses for the failure to produce only beautiful pictures, books, statues, buildings, furniture, gardens, etc.

Our beloved Venus of Milo is not beautiful to a Turk, whose notion of feminine beauty begins with flesh in quantity and ends with fat in bulk; nor is Chinese music harmonious or poetic to Occidental ears. We don't admire nose-rings in men or women, but some of us, at least, like ear-rings in women and laugh at them in men! We think a woman in evening-costume beautiful if *she* be beautiful, but we would laugh out of any drawing-room a man similarly attired. We enjoy the scenery of a modern play, with its wonderful depth and distance, yet we have never seen its like in nature, nor ever will. Were we asked to admire the beauty of a cave-man's dwelling, our opinion of it would probably coincide with his of our modern drawing-rooms. Beauty, except that of nature, is largely an idea, almost wholly in the mind, and, as the mind admires that which is difficult, rather than that which is every-day and commonplace, our standards are difficult of attainment.

All of this is but the preface to the meat of this story; yet skipping the preface would be as poor a preparation for it here as it is for reading a book. Prefaces are the things the author forgot or did n't dare say elsewhere. Here it is my privilege to use it for my premises.

To begin. Nobody will contend — unless, indeed, it be the manufacturers of moving-picture film — that most of such films have much claim to beauty of any kind. They aim to excite, to interest, to be funny, to be tragic, to rouse the emotions and to draw a crowd; but their appeal is seldom, if ever, the ap-

peal of beauty. Nor will any words of mine ever make them so. The field of the moving-picture is not that of the satisfaction of the craving for all that is beautiful, any more than the daily paper is intended to satisfy a desire for good literature.

But we read and choose for our homes those daily papers which, in addition to giving all the news and to being clean, present their matter most readably, with the least mistakes of diction, grammar and spelling; and those of us who are one grade above the Hottentot in education and training would patronize those moving-picture shows, first, which presented their plays, travel-scenes and stori-ettes in the most beautiful — pictorial — manner.

Before a work of art can be admired in the fullest enjoyment the mechanics of display must be attended to. A picture must be hung aright, lighted aright, properly isolated from disturbing surroundings and presented in the most attractive manner. There is an ancient story of a young and starving painter whose production, meritorious but unrecognized, was skied at an exhibition and ignored, even by connoisseurs. The artist, in desperation, hired a hall, on credit, got some red velvet, on credit, hung his picture properly, lighted it aright, got himself arrested and his name in the papers, drew a crowd to his exhibit and sold his picture for many shekels. True or not, it is but an illustration of the power of mechanics as applied to a display of an art-product. It takes years for a race to recognize either a Milton, a Dickens or a Poe, and but a year for it to hale a Du Maurier or a Tarkington. The first lacked advertisement — their genius had to filter through civilization, literally from mouth to ear. The latter were forced to notice through the press — their books did the rest. They had, in a high degree of perfection, the mechanics of display.

The moving-picture lacks the perfection of the mechanics of display to such a degree that it can scarcely be said to have any. Since the first machines produced their flickering images some fifteen years ago, what improvements have been made? Lighter machines, safer machines, speedier machines, better shutters, better mechanism, better film — to be sure! But still we have flickering pictures, still we have holes in our film and still we run them at speeds all out of proportion with nature. Art may be "an idea seen through a temperament," but if temperament imagines a man nine feet high and with blue ears we wouldn't admire the picture! So we cannot admire men running so fast that their legs are a streak, or automobiles whizzing about corners at speeds which controvert the law of gravity.

The very first thing to do is to get some new ideas in moving-picture machinery. Nor are they far to seek. The principles are sufficiently well known — it is the commercial seeking after the harvest now in the hand which prevents the realization of the dreams of those who see, asleep, their moving-pictures at a steady speed, flickerless, holeless — perfect.

Haines, for one, has several notions of how to do the trick, in one of which a movable mirror, double film, and a single light-source completely do away with flicker. I myself, unskilled in the mechanics of motion-projection, worked

out a scheme some years ago by which alternate projection from duplicate film did away with flicker, and was told by one of the real moving-picture experts of this country that there was nothing the matter with the idea, except that of impracticability on account of expense and difference between existing models. Flickerless film and film run at proper speed have been shown, experimentally, and the successful experiment of to-day is the every-day occurrence of to-morrow.

Urged against it is the present standardization of film, the enormous number of machines of one standard pattern now running, the expense of changing, etc., etc. It is capital crying out against a change which would cut down profits; a silently-suffering public, which knows no better, on the other side. Yet most civilized nations have climbed over the rock of change instanced between the pounds and ounces and the metric system — a change beside which that in moving-pictures would be scarcely seen.

But, even admitting perfect mechanical display, there is many a word yet to be said about the composition of the film itself, as made commercially. In the first place, canned drama of to-day is canned melodrama of a low type, and the scenery of such plays is apparently bought second-hand from theatres who have no use for it. Is there any verisimilitude or truth in a picture of a woman weeping amidst the ruins of her home, when the canvas door evidently shakes and the flood of light which surrounds her obviously cannot come from the all-too-evidently *papier-mâché* chandelier above her? Of course, it is done on the stage. But we have the magnificence of a great actress, perhaps, to make us forget the tawdry scenery, even as we have imagination to make us forget the printed page and wander with a favorite author among scenes grave or gay as he elects. Even as a "dime-novel" excites only ridicule among those who know good books, so cheap scenery and poor acting carry no conviction in a moving-picture.

A moving-picture showman told me that in his opinion the greatest film ever produced was that of a train-robbery, and that it was great not only because well acted, but because there was only one "fake" scene in it; the rest was real — real country, real horses, real trains, real engine, real everything. It was so natural that it convinced.

Why does a "chase" picture make you laugh? What is there funny about a lot of people breaking their necks to catch a baby-carriage, a thief or a crazy distributor of dollar bills? It is the naturalness of the scene — half in the surroundings, which are, of course, the every-day out-of-doors we know, and half in the naturalness of the actors, half of whom, not infrequently, are not "down on the bill," but join the chase under the impression that it is real!

So to make film real, and so, artistic and beautiful, it is essential to get rid of all that is ugly and cheap and common and untrue in the necessary surroundings. If a drama must start with an interior, why, in the name of all that is prodigal in the American showman who spares neither expense or time, should he not have a real interior, and, if it is necessary, yank off the roof and put his lights above — take out a wall and make them shine from a side, but have the

background what is recognizable, actual, familiarly genuine, not what is evidently but "make believe" of so coarse a kind that none of us who see can forget it?

Of pictorial composition there can be little in a picture which changes every instant, save in the backgrounds. But the incongruities of a poorly-composed, stationary picture do not afflict the eye in a moving one, and little thought need be expended there, save in *ensemble* work, where groupings and mobs can be, should be — perhaps, sometimes, are — as carefully thought out and portrayed as in a Belasco production.

Of real naturalness, except in the most hurried of actions, there is little in moving-picture drama, because every one and every thing is invariably in such a tearing hurry. A man folds his arms to think as if he were starting a vigorous calisthenic exercise, and when he walks he imitates a mechanical doll. A woman fans herself as if working for a record, and lovers embrace and kiss as if they had to get it over with before the audience saw what they were doing.

Leaving out such more or less profitless discussions as of ways and means for improving projection-machinery to a reasonable speed of action — profitless except as all protests which make people think of evils they know about are of use — has it never dawned upon any bright moving-picture film-manufacturer that, if he must run his film faster than he made it, it might work a wonder if he slowed up the original action of his players?

Let the man who wants to think fold his arms slowly, softly, gently, as if they hurt him; let the woman fan languidly, as if it tired her; let his actors walk as if pacing in meditation; and then, when he speeds his film beyond the normal, his slow action will become normal action. Difficult? Of course it's difficult! It is extremely difficult; but, heavens and earth! is n't all picture-making and action and show-managing difficult?

The possibilities of pictorial presentation in moving-pictures are large. The improvements which have to be made in methods and in apparatus are large, too, but the greatest change which has got to come first is the attitude of the public. The public gets what it wants and will pay for. Even as twenty-five cent vaudeville has risen from the ranks of the knock-about theater to a society diversion, merely through demand, so can five-cent shows be raised from their present slough of ugliness to a better and more beautiful plane, simply through demand. You can ask for it — I can ask for it — there is no result. But when PHOTO-ERA is joined by others with the ability to spread the leaven broadcast, and not only you and I, but Smith and Jones and Brown and Robinson, and so on and so on, commence to ask for better and more pictorial and more beautiful and more truthful pictures, and begin staying away from these places because they don't get it, why, you will see such a revolution in moving-picture shows as will make even their most ardent defenders wonder how they ever managed to gull the public with the utter abandonment of ugliness which is seven-tenths of what they now use as implements of torture for those who, expecting little, are yet disappointed and disgusted with what they see.



W. A. I. HENSLEY
BY LONDON'S WATERWAY
INTO THE WEST
FIFTH AMERICAN PHOTOGRAPHIC SALON





FRANK E. HUSON

THE HAMPSHIRE COAST

FIFTH AMERICAN PHOTOGRAPHIC SALON

On the Comparative Merits of Different Developers

MALCOLM DEAN MILLER, A.B., M.D.

II. Developers for Negatives

IN my first paper I indicated the plates which alone seem to me perfectly satisfactory in truthful rendering of landscape. By this, I did not mean to imply that the ordinary plate has no place in the photographer's equipment; on the contrary, there are many occasions when its use is more convenient than that of the panchromatic plate, and the results sufficiently satisfactory. Passing by, then, for the moment, the developer which I have found best for red-sensitive plates, I shall begin with the old reliable pyro.

Since I first took up photography there has been a noteworthy revolution in pyro formulæ. Ten years ago the average recipe called for a pyro strength of two and one-half to three grains per ounce, with relatively little sulphite and much carbonate. These faulty formulæ would not produce the type of negative which I have stated as my ideal, save as modified by the worker. All the objectionable characteristics of pyro were made more prominent by them. The typical pyro negative was yellow, intense, veiled in the shadows and "plugged"

in the high-lights, so that one had inevitably to sacrifice shadow-detail to half-tones, or *vice versa*. The great increase in the use of developing-papers and of cold-bath sepia platinum led insensibly to modification. These papers require a negative approximating the ideal as given at the close of my first paper. It has been found, furthermore, that such negatives give excellent results with carbon and many of the other printing-mediums used by amateurs. Even the professional no longer makes his negatives with "Aristo Plat." in mind as the only paper.

The new type of pyro developer is well illustrated by the A B C formula, now published by practically all the plate-makers. Each solution is sixteen ounces, and to the ounce of pyro there is usually allowed two ounces of anhydrous sulphite of soda and one ounce of anhydrous carbonate of soda. One ounce of each stock solution is usually taken, and the volume made up to about thirteen ounces. The Lumière formula, however, uses only half as much of the pyro stock as the Cramer. If one uses the ounce can of pyro (437.5 grains) the strength of the diluted developer is: Lumière, 1.09; Cramer, 2.10 grains of pyro per fluid ounce of mixed developer. My experiments have proved to my own satisfaction that less pyro and more sulphite and carbonate than used in these formulæ give a negative more closely approaching the ideal.

Expressing my final results in the popular A B C form, my favorite pyro formula is:

A

Pyro	1 ounce av.
Potassium metabisulphite	2 drams
Water to make	16 ounces

B

Sodium sulphite anhydrous	5 ounces av.
Water to make	16 ounces

C

Sodium carbonate anhydrous	2½ ounces av.
Water to make	16 ounces

The mixing of apothecaries' and avoirdupois weights is unavoidable as long as the scale-makers supply both kinds of weights in the same set. It will be noted that this formula more than doubles the amount of sodas, as compared to the Cramer, while the pyro strength I use is only a little over one-half grain to the ounce, mixing the developer as follows:

A	2 drams
B	2 "
C	2 "
Water	12 ounces

This formula, in my hands, produces better-balanced negatives on Cramer plates than their own formula. The negative is free from yellow color, stain, fog or veil; and, best of all, the half-tones *print*. I carry development on until

all the principal high-lights have come through to the glass. On fixing, the negative will be found to have a very full range of gradation and to be thinner in the lights than the average pyro negative. The color of the deposit is a good black, like the mark of a very soft drawing-pencil.

Concerning pyro as a tank developer I have nothing to say, because I have found another agent superior. It may be well, however, to say something about the choice of salts.

In the selection of chemicals great care should be exercised. This is especially true of the sulphite and the carbonate of soda. Personally, I consider the anhydrous salts put up by Mallinckrodt as good as any. One can pay more for fancy packages, such as are sold by many plate-makers; but the pound cans, carefully closed, are satisfactory. The anhydrous salts have several advantages. They are of definite strength, not subject to variation from the evaporation of water of crystallization; they dissolve more readily than crystals if poured into the water while stirring constantly; they keep better in the solid state, being less liable to oxidation than crystals. Sodium sulphate, found as an impurity in cheap sulphites, has a deleterious effect on most developers, slowing their action and tending to stain the gelatine. So, too, the formation of the sulphate in solutions by oxidation affects the keeping-qualities; hence it is advisable to make up only small quantities of any developer. Impure carbonate usually contains the acid salt, sodium bicarbonate, which is a weaker alkali than the normal carbonate and leads to variation in results. The proportion of alkali in a developer should vary only within narrow limits, because energy of action depends, as a rule, on relative alkalinity. Too much carbonate will produce fog, stain and "plugged" high-lights. Too little causes the solution to work slowly and to give thin negatives. It is advisable to select one brand of both these salts and to use nothing else.

I shall say little as to water, for in Boston, at any rate, I have found no advantage in using distilled water. Doubtless in some parts of the country more care has to be exercised. It is, however, well to filter all developers just before use. A wire-gauze kitchen strainer lined with several thicknesses of fine muslin is sufficient, or one can use absorbent cotton in a filter-funnel.

Good as the pyro formula above is for general use, it is not so well suited to panchromatic plates as glycin. This latter agent is in many respects the best of all developers. It works absolutely clear without bromide, gives the finest-grained silver deposit of all the reducing-agents used in photography, and produces negatives with an extraordinary range of printable gradation. Used alone for tray development, it requires enormous quantities of alkali, and even then works so slowly as to wear out the most exemplary patience. It is for tank development that glycin is best adapted, and, curiously enough, it seems to work relatively faster in a diluted state. The great disadvantage is the certainty that bright yellow stain will result if the least trace of hypo touches the plate before all the developer is removed from the film. If one invariably washes all plates well before fixing, however, this defect will not cause trouble.

For the tank, glycin should be made up about in the following proportion:

Hot water	32 ounces
Sodium sulphite anhydrous	70 grains
Sodium carbonate anhydrous	70 “
Glycin	140 “

Dissolve and add water to make up to one gallon. Use at 50 to 55° F. Overexposed plates develop in ten to fifteen minutes; normal exposures, in thirty minutes; underexposures, in an hour or more. If desired, only half as much water may be used, in which case development is much quicker. Personally, I have no abiding faith in “time and temperature,” preferring to inspect the plates at suitable intervals and to remove them, as soon as fully developed, to a tank of water provided with a light-tight cover, in which receptacle they are well washed before removing to the fixing-bath. This method has given me, with all brands of plates, negatives quite the most perfect of any I have made; but it is necessary to develop fully, i. e., until the image shows strongly on the back of the plate. Higher temperatures than 60° should be shunned if one does not wish the gelatine to soften and slide down the plate. In summer, accordingly, if ice (or a cool dark-room) is not available, the tank method may be replaced by a combination of glycin with metol for tray development.

The glycin-metol formula, which has given me results almost identical with the tank formula above, may be made up in one or in two solutions. The latter is:

A

Hot water	20 ounces
Sodium sulphite anhydrous	4 drams
Glycin	2 “
Metol	1 dram
Potassium bromide	2 grains

B

Water	20 ounces
Sodium carbonate anhydrous.....	480 grains

For use, mix equal parts. The bromide is needed to restrain the slight fogging tendency of metol. Development is very rapid, and the solution is, therefore, ideal for tray development of panchromatic plates. A single test at any given temperature will determine the time required for a normal exposure — and all panchromatic plates should be timed by meter or the PHOTO-ERA exposure-guide — so that the remaining plates may be developed by time alone, if desired. A brief inspection at the close of the calculated period will, notwithstanding, be safe, because the plate has then lost its sensitiveness to the safe-light. Great care must be taken to develop just long enough; i. e., until all the strong high-lights just come out on the back, but no longer.

A developer which gives the above combination a hard tussle for first place is edinol. This single reducing-agent combines the speed of metol with a clear-



JOHN CHISLETT
SUNBEAMS
FIFTH AMERICAN PHOTOGRAPHIC SALON





R. DÜHRKOOP

PORTRAIT OF MISS L.

ness of working almost equal to that of glycin. Like metol, it requires that development shall be carried very far to retain sufficient density. The plates are clear, clean, full of soft detail and gradation; altogether, very near the ideal for most printing-processes.

Many of the published formulæ give excellent results. One which I have used for several years with perfect satisfaction is as follows:

A

Water	14	ounces
Sodium sulphite anhydrous	620	grains
Edinol	124	"

This should be shaken before using.

B

Water	14 ounces
Sodium carbonate anhydrous.....	620 grains

For plates, take one part A, one part B, and two parts of water. Bromide is, as a rule, not needed; but in any case the quantity required is very small.

Another formula which possesses special advantages as a developer for over-exposed plates is made up by using acetone-sulphite in place of sodium sulphite:

Edinol	15 grains
Acetone-sulphite	75 "
Sodium carbonate anhydrous.....	110 "
Water	4 ounces

The use of a 50% solution of acetone-sulphite, instead of bromide, as a restrainer with this formula allows one to get excellent negatives even from enormously overtimed plates. Acetone-sulphite, in fact, seems to give greater brilliancy and better gradation than the sodium salt.

Still another developing-agent which will produce practically ideal negatives is amidol or dianol. It has long been favorably known as a developer for bromide paper, and for transparencies from which three-color printing-blocks are made. Few photographers realize that it is equally good for negatives. Its simplicity is its greatest recommendation. One has simply to dissolve sulphite and dianol in water to produce an excellent solution. A good general formula is:

Water	8 ounces
Sodium sulphite anhydrous	60 grains
Dianol	10 "

Increasing the sulphite produces more detail and gradation; increasing the dianol gives greater density. Most plates require two to ten drops of 10% bromide in the quantity of solution given. The bath may be used for several plates in succession, but should then be thrown away. It is so easy to prepare this developer that I can see no excuse for not dissolving it in small quantities for immediate use, thus doing away with stock solutions. The latter will not keep for more than a week at best, whereas absolutely fresh developer is quite reliable. The color of the deposit is blue-black, and the negative shows full detail in all the tones from clear glass to the deepest opacity. The one great disadvantage of dianol is its property of staining the skin and the nails, in which respect it is as bad as pyro.

This concludes what I have to say on negative-developers. There are, of course, many other good ones; but these have proved, in my tests, just a little better than the others. They may not exactly suit all methods of working; but slight modifications will fit them to produce almost any desired result, and they will certainly yield plates which will print out all the beautiful range of tones we so commonly see in the negative when held to the light, but all too commonly fail to retain in our prints.

(To be continued)

The Instantaneous Flashlight and Its Uses

E. F. KELLER

OF all methods applied in the art of photography the instantaneous flashlight is perhaps the least popular with the general worker. This is no wonder when we consider the average results obtained and the number of accidents on record, but this branch of the art has a future. The possibilities and range of application of flashlight photography are certainly amazing, and will surely gain recognition. Rendering of color-values in truer gradation, and photographing of great contrasts in better relative proportion, are far more easily obtained by flashlight than by daylight.

Conditions are reversed in this method, the near-by objects receive more light and, in consequence, we are able to photograph small objects in their natural size, or even magnified, and to do so instantaneously. The value of such possibilities should be greatly appreciated by the naturalist and scientist.

In my opinion, photographing children at home can be done successfully only by instantaneous flashlight. No operator under the sky-light can picture the little ones as well as it can be done in surroundings familiar to them. Speaking of photographing children reminds me of a question I was asked some time ago by a gentleman well known to the profession; the question was, "Is the sudden explosion of a charge of flashlight powder injurious to the optic nerve of a small child?" It is a well-known fact that the pupil of the eye is dilated in dim light and contracted in strong light; a sudden extreme of either condition must therefore produce shock. There is no doubt that my friend was justified in bringing up this question, because he confessed to me afterwards that on several occasions he had been in groups made by flashlight, and he also informed me that usually it was several minutes after the flash was fired before he was able to see again. This sort of flashlight work practised on an innocent, defenceless baby is cruelty, and anything but beneficial to the eyes of anybody.

It is the custom of the inexperienced amateur to photograph his friends and relatives by flashlight, and here is the formula: the victim or victims are posed in the parlor against the wall; the camera is placed in position; the flash-cartridge put on a step-ladder and a little to one side of the outfit; all the lights are carefully turned as low as possible and, after a few minutes of suspense, there is a report, a blinding flash, and the ordeal is over. The ultimate result of this effort is usually a sad looking picture; most of the members of the group look like jack-o'-lanterns calcimined — white, chalky faces with two black dots for eyes on some; the ones with experience in the game without any eyes, because they knew what was coming and kept their eyes shut tightly until the flash was over.

If the flashlight is placed properly and diffused through some suitable material it is no more injurious to the eyes of a child or grown person than daylight. It is absolutely senseless to turn the lights low; rather, light up all the

burners on the chandelier, as this will reduce the *visual* effect of the sudden flash to a minimum, and will prevent the undesired dilation of the pupils and give the eyes a natural expression.

You will have plenty of time to work with an ordinary outfit. Not even a shutter is required; a cap will answer all purposes, as a number of seconds can elapse between opening the lens and making the exposure without the slightest danger of a double image when working in a room illuminated by gas or electric light.

When operating in the daytime, draw the shades down and you will be reasonably safe from double exposure, as long as you do not point the lens toward the window. There is no reason to place the light in such a position as to come in direct line with the eye; it should always be to one side and high above the sitter for general work. The eye should never be directed toward the flash. A very efficient means to diffuse the light is a cheese-cloth-covered umbrella, fastened about two feet away from the flash. Any umbrella-maker will cover a cheap frame with cheese-cloth or other suitable material for a reasonable amount.

Many devices for igniting the powder are on the market, some burning alcohol, others ether-vapor; others again are fired with a cap or a parlor match. Very practical flash-lamps of the alcohol and ether type are offered on the market, and are in use in many high-class studios, and many portraits much admired are made by flashlight with these lamps. The cap or parlor-match contrivance is in my experience not practical, as the explosion of the cap or match is a fraction of a second ahead of the powder, especially in damp weather, and this often gives results with decided movement or eyes shut.

I tried to photograph with a cap-firing lamp a cheetah or hunting-leopard some years ago, in a zoölogical garden, and on this occasion I convinced myself of their impracticability. The leopard would stand absolutely motionless, but as soon as the plunger hit the cap he started to leap, and there was enough motion in that cat before the flash was over so that the best-trained naturalist would have failed to identify the specimen from the resulting negative.

After years of experimenting I have come to the conclusion that the most up-to-date and practical way to fire a charge of flashlight powder is to use electricity. There is no burning alcohol lamp, no inflammable substance to be carried about. Should some one by accident get entangled with the conducting-wire and upset the lamp all that happens is that a little powder is spilled, which is easily swept up and surely less injurious to a good carpet than burning alcohol.

My knowledge of electricity is not expert, but I will endeavor to the best of my ability to describe the device I constructed. The battery consists of eight dry cells (Columbia $1\frac{3}{4} \times 4\frac{1}{2}$ inches) connected in series. At the one terminal a three-point switch is interposed so as to enable the operator to cut off the battery entirely when the switch is at *a*; at *b* a small incandescent lamp is brought into the circuit, which cuts down the current low enough so that the fuse will carry the current safely. This is advantageous, as the operator can test the



R. L. SLEETH, JR.

FIFTH AMERICAN PHOTOGRAPHIC SALON

DEPARTING MISTS



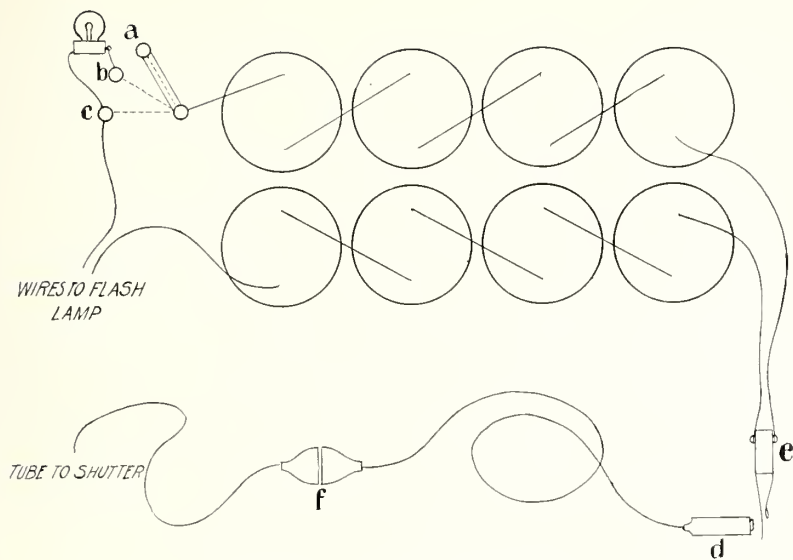
A. W. WALBURN

A SYLVAN SCENE

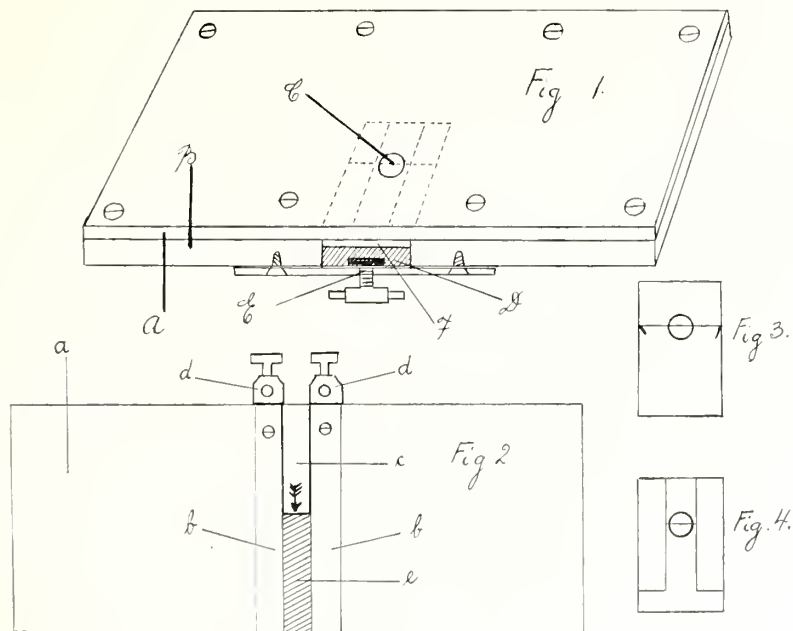
FIFTH AMERICAN PHOTOGRAPHIC SALON

entire system with the flash-lamp charged with powder ready for firing. When the switch is moved to *c* the incandescent lamp is cut out and the fuse will receive the full current the moment the circuit is closed, which burns the fuse and, at the same instant, ignites the powder. On the opposite end of the battery-system is a contact arrangement operated with a plunger *d*. At *e* the two terminal points are connected with a fork made of flat German-silver springs fastened to a non-conducting base. The bulb *f* is connected by rubber tubing with the plunger *d*, the other tubing being connected with the shutter (I am using Packard or similar shutters). When pressing the bulb the plunger will force the two points of the fork together, closing the electric circuit; at the same instant the shutter is thrown open, and closed again, of course, the moment the bulb is released.

If a camera with a square bellows is used the lens-board opening will be found plenty large enough to permit the fastening of the shutter on the lens-



GENERAL PLAN OF BATTERY



DETAILS OF THE INSTANTANEOUS FLASH-LAMP



GIUSEPPE CASTRUCCIO

VENDITORI DI PESCE

FIFTH AMERICAN PHOTOGRAPHIC SALON

board, and the contact-fork can be placed over the plunger of the shutter and the contact made with the opening movement of the instrument.

The electric flash-lamp is very simple in construction.

Fig. 1 shows the top, and the front sectional view. The top of the lamp A consists of $\frac{1}{8}$ -inch of slate screwed on a wooden base B. At C the slate is provided with an opening about $\frac{3}{16}$ of an inch in diameter, across which the fuse-wire is placed, making it the firing-point of the lamp. D represents a loose wooden clamping-block operated by a clamp-screw E. At F the opening for inserting the fuse is shown. The approximate position of the fuse under the slate top is indicated by dotted lines.

Fig. 2 shows the base of lamp A with slate top removed. The German silver contact-springs bb are countersunk in grooves their own width and connected with the binding-posts dd.

The springs are bent so that the clamping-block e is forced downward, enabling us to insert the fuse as far as the shoulder c, which acts as a stop.

The fuses are made of thin sheet mica. Fig. 3 is to show the circular perforation, and method of stretching the fuse-wire over same. Fig. 4 shows the German-silver contact-shoulders. These thin metal strips extend on both sides as far as the edge of the perforation. It will be readily understood that when



H. Y. SUMMONS

LA VIEILLESE

FIFTH AMERICAN PHOTOGRAPHIC SALON

the fuse is inserted at the opening F, Fig. 1, the perforation of the fuse will be brought into register with the opening C.

The German-silver shoulders of the fuse rest on *top* of the contact-springs, bb in Fig. 2, and when tightening the clamp-screw both fuse and springs are forced against the slate top by the clamping-block D.

The advantage of the perforated fuse is that it may be inserted either side up, as the powder will reach the fuse as long as the latter is inserted proper end first, so that the perforation will register with the firing-aperture. Another ad-



E. F. KELLER

FLASHLIGHT STUDY

vantage of this lamp is that the contact-springs are not soiled by the explosion of the powder, since they are protected by the mica fuse.

Another very effective method of working a flashlight ignited by electricity is to use a Reflex camera. The curtain is opened to its full width, and the spring-tension wound to fairly high speed. The shutter is wound up in the same manner as if a time exposure was to be made by lifting the mirror and sending down the curtain by an additional pressure of the release.

A contact-device is so arranged that the flash will explode just when the mirror has cleared the lens, the curtain covering the plate the next instant. This method is of great value in photographing children, as the operator is able to focus until he sees the desired pose, and then quickly press the release, making the exposure. The curtain covers the plate so quickly that a double image is impossible.

In photographing against the light, as was the case with the child feeding the dog, this device is invaluable, as it enables one to obtain the most charming effects by combining daylight and flashlight at the same instant.

Patents for the use of electrically controlled flashlight devices in conjunction with reflecting-cameras are pending, and the complete device will be placed on the market shortly.

Full descriptions, drawings, etc., will appear in the proper column of this publication.

Much in Little

THOMAS H. HOLMES

HOW very seldom one sees in a photographic establishment the slightest appreciation of the cubic contents of the room instead of only its floor-space! Many accessories and pieces of furniture can be hoisted to the ceiling and lowered only for actual use in the studio. Backgrounds can be mounted upon spring-rollers and placed on end in a corner until needed, when any one of them can be placed in the proper brackets on a common stand and unrolled. In the printing and finishing-rooms the materials for many different processes can be conveniently handled in small quarters by means of shelves or cupboards hung from pulleys in the ceiling and lowered only when their contents is needed. And the same principle applies in the developing-room, where negatives may be placed to dry on hanging shelves and then hoisted up out of the way. One amateur has carried this idea almost to perfection, and a description of his arrangements will indicate how any one may be able to save much floor-space.

He has but one camera — $3\frac{1}{4} \times 4\frac{1}{4}$ size — and depends entirely upon enlarging, uses considerable bromide and gaslight paper for direct enlargements and is fully equipped for all sizes up to 24×36 . He uses the wet-plate process for lantern-slides and enlarged negatives and is fully equipped up to 11×14 . From the enlarged negatives he prints by arc-light on carbon, platinum, kallitype and P. O. P. papers. He does all his own mounting and keeps a good stock of full sheets of cover-papers. His dark-room adjoins his bedroom and, at a moment's warning, he can step into the former and take up any one of these processes independently of all others as easily as though it were the only one he worked. And the remarkable part is that all is contained and done in a room only $7\frac{1}{2} \times 13$ feet. The door is at one end and a large sink at the other. With passage-way in the center, one square foot in the left-hand corner is occupied by backgrounds and reflectors on spring-rollers standing on end, with hinged three-legged easels to hold them when in use. From this corner back to the sink is a work-table with wide shelves above it. The sink and drain-board occupy the far end, and next to it is a table with a large hypo tray for bromides. Next to this is an automatic washing-box 2×3 feet in size. Next is a space of about eighteen inches in which is a small table only ten inches square, but arranged to be raised or lowered to any desired position. Next is a rather large, high table or platform, underneath which, arranged to pull out like drawers, are cheese-cloth-covered frames, upon which are dried all the bromide and other prints. The entire floor-space is thus occupied, and no mention has been made of the enlarging-lantern or its easel; of the arc-light; of materials, chemicals, stock solutions, etc., because none of them occupies floor-space.

The first economy is with the enlarging-lantern, which is permanently mounted on top of the drying-rack. Along the wall, and at a good height, is a



B. WARD-THOMPSON

FIFTH AMERICAN PHOTOGRAPHIC SALON

PATTERDALE

wooden track onto which the upper corner of the easel is hooked, and upon which it travels back and forth over the wash-box and fixing-bath. The small adjustable table or stand is used to support masks when enlarging. The arc-light is mounted at the small, closed end of a large box, on the outside of which are its resistance, fuse plugs and switch. By cords and pulleys this box is hoisted to the ceiling or lowered onto the table for printing daylight papers. A plug connects it to a regular electric house-fixture. Also suspended from the ceiling is a cupboard or dumb-waiter with many shelves. Each shelf is devoted to a single process and contains all the necessary materials, from unused chemicals to the finished product, including all bottles of stock solutions and developers. It is lowered and the required articles placed on the work-bench, when it is immediately raised out of the way. For mounting-materials there is a shallow, wooden tray of generous dimensions, upon which everything necessary is placed and also hoisted to the ceiling. Another similar shelf or tray, upon which racks of wet negatives or home-made papers are placed to dry, is also attached to the ceiling and lowered for only a few moments at a time.

In this way a very small room is made comfortably to accommodate a large range of apparatus and utensils. In fact, its reputation for completeness and convenience is such that many amateurs and some professionals frequently ask its use for doing some unusual piece of work for which they do not happen to be equipped. One of the novelties is the light-box over the sink. This revolves on an axle through the ends. One side is open and, when this is pointing down, the side facing the operator is covered with white ground-glass. Another side has safe ruby-glass and the fourth side has pale yellow glass. The box is partitioned off diagonally so that the light from an electric bulb in each compartment can shine only through one glass. Each of the lamps is wired to brass-headed nails on the outside, so placed that they will come into contact with flat, springy terminals of the main line wires only when its colored glass is on the under side. Turning the box for any desired shade of light automatically turns off and on the proper lamps; a cut-out switch on the wall controls the current.

Another unique feature is the method of handling sensitive paper and plates on the enlarging-easel in an ordinary printing-frame, having a hook screwed into the top to engage a ring on the end of a cord which winds and unwinds on a spool mounted on top of the easel. The spool turns readily in either direction by hand to adjust the height of the printing-frame, and is retained in position by the friction of a flat, brass spring-band engaging one end of the spool, which is here broad and flat.

It is not beauty of the subject which makes it a work of art, but the beauty of the form which the imagination of the artist gives to the subject.—DENMAN W. ROSS.

Flower Photography

E. LOUISE MARILLIER

TO any one who is fond of flowers this is one of the most interesting branches of photography, although not without its many difficulties. At the request of the editor of PHOTO-ERA I will tell, by describing my *modus operandi*, how some of them may be overcome.

One of the most essential things required is a good background. I have several which I have painted in oil-colors on artist's large-sized canvasses. My favorite is shaded from rather light gray to warm gray-brown.

Flowers should always be gathered fresh and put into water for two hours before arranging them. This is best done on a deal-top table; it is a trying ordeal and sometimes much patience is required. As it is very difficult to get the blossoms and foliage into satisfactory focus, a little wire or a pin has to be resorted to if the exposure must be long, for I find the flowers are inclined to move.

Barnet Ortho plates have been used in my work, as they allow a very wide range of exposure. A three-times yellow screen is necessary, and in the winter and early spring I give from five to seven minutes' exposure in a well-lighted room, the windows being shaded with white calico or muslin and a white reflector being made use of. My lens is a whole-plate Zeiss of rather short focus, and for this work I use stop 22. Contrasts should be avoided in flower photography, and for that reason Rodinal, one dram to ten ounces of water, is an excellent developer, as the dilute solution gives a soft negative. My favorite printing-processes are carbon and platinum. The former gives scope for endless effects, which makes the work doubly interesting.



E. LOUISE MARILLIER

PEONIES



GRAPES

E. LOUISE MARILLIER

EDITORIAL

Preparing for the Journey

WHILE many of our readers have, doubtless, resolved to visit the coming photographic exposition at Dresden and are experiencing the joys that always precede a momentous undertaking, it is safe to hazard the assumption that relatively few are fitting themselves to appreciate adequately the significance of the sights which await them in the old world. We refer, more particularly, to objects of interest independent of the exposition itself — to treasures of art-museums, monuments commemorating men or events, great cathedrals, etc., many of which will be included in the tourist's itinerary. Whether the traveler contemplates one of the innumerable landmarks of Old England, France or Germany; whether he journeys up the castle-bordered Rhine, views the glorious aspect from Mount Pilatus or crosses the tragedy-laden Bridge of Sighs, he cannot experience the sensation of complete enjoyment if his mind is a blank regarding the object which engages his attention. To be sure, he may consult the always excellent and indispensable Baedeker, or turn to his guide or a well-informed companion for information. In either case the satisfaction obtained will not compare with a knowledge derived long in advance — data which were gleaned and stored in the memory during hours of leisure preceding the journey. The wiser ones are already engrossed in studying the history, art, people, topography and language of the countries which they intend to visit, for it is not to be supposed that an American will confine his sight-seeing to Dresden or even to Germany. Therefore, a suitable mental preparation is urged upon every one who purposes making a journey to Europe. In the absence of a friend familiar with the localities to be visited by the novice, the latter can have recourse to books on travel and on art, of which there are many, but of varying excellence. For several years past the editor has made a practice of reviewing, conscientiously and impartially, books of this character, and takes sincere pleasure in submitting to his readers the following list of really admirable works: "A Wanderer in Holland," E. V. Lucas; "Through the Gates of the Netherlands," Mary E. Waller; "Three Weeks in Holland and Belgium," John U. Higginbotham; "The Arts of The Netherlands Galleries," David C. Preyer; "The Old Masters and Their Pictures," Sarah F. Titler; "Arts and Crafts in the Middle Ages," Julia deWolf Addison; "The Art of the Dresden Gallery," Julia deWolf Addison, also separate volumes on the National Gallery (London), The Louvre (Paris), the Venice Academy and the Pitti Gallery (Florence), by the same author; "In and Around Venice," Horatio F. Brown; "Studies in Pictures," John C. Van Dyke; "How to Study Pictures," Charles H. Caffin; Hare's "Walks in London," and similar works by this author on Paris and Holland; "The Italian Lakes," W. D. McCrackan; "Switzerland and the Rhine," Joel Cook; "Picturesque and De-

scriptive England" and "Historic and Romantic France," by the same author; "The Cathedrals of England," M. J. Taber; "The Makers of Florence," as well as "The Makers of Venice," by Mrs. Margaret W. Oliphant, and last, but not least, the Baedeker guide-books of the countries to be visited.

Our Advertising-Policy

CRITICISM has occasionally been made to the editor on the absence of a certain class of advertisements, including applications for positions as operators, printers, clerks, etc. The dearth of such advertisements in PHOTO-ERA is due to the fact that applications for space from persons unknown to the publisher must be accompanied by first-class references covering the technical proficiency and moral character of the applicant, as well as payment for the space ordered. When these conditions have been complied with and the matter of advertising-fee satisfactorily adjusted, the advertisement will not fail of appearance in these pages. In the case of photo-finishers and others engaged in technical work, such as the making and coloring of lantern-slides, bromide enlargements, etc., specimen work must be submitted for the approval of the publisher, unless it is conveniently accessible to him or his representative. If considered satisfactory by him, such work may be advertised in this magazine; otherwise, not. No pecuniary considerations, however tempting, will change PHOTO-ERA'S policy in this respect.

Our Technical Department

AT no time in the history of this publication has there been such a steady influx, from subscribers and advertisers alike, of letters expressive of sincere pleasure and satisfaction in the appearance of the magazine, its pictorial, technical and literary features, as well as its business-policy. The various departments of PHOTO-ERA receive uniformly careful attention from the publisher and his staff of editors. Nothing is neglected which will contribute to its success and influence as the foremost photographic journal published in the United States. While articles of a technical nature appear in the body of the magazine, every month, extended notices and reviews of foreign progress and investigation will be found always in our technical department, "The Crucible." Thus, the present issue features such important subjects as a new method of factorial development, by the Messrs. Lumière, which corrects over-exposure and ameliorates under-exposure; the Omnicolore Screen-Plate, invented by M. Jougla, and the new Ensyna paper of Austin Edwards. "The Round Robin Guild" is also thoroughly practical and instructive, being intended chiefly for those who wish to improve the quality of their work. The short articles in this department tell concisely just how to do things; and not the least beneficial portions are the "Answers to Correspondents," for by reading of the difficulties of others and how they might have been avoided, the camerist is warned in advance and given the benefit of the experience of others. The print-criticisms are also written in such a way that all may benefit by them.

OUR ILLUSTRATIONS

"A VISION," by Davis and Eickemeyer. This is one of the many poetic conceptions of Mr. Rudolf Eickemeyer, who chose and posed the model. The artist's refined sense of beauty is here well illustrated, as well as his thoroughly artistic and graceful treatment of the subject. No data were supplied except that the lens used was a combination of Mr. Eickemeyer's and one which he is trying out in portraiture, as well as in landscape.

Most of our illustrations this month are taken from the foreign section of the Fifth American Photographic Salon, which comprises fifty-six prints from sixteen contributors. As usual, the largest number of contestants are credited to England, although the largest number of prints from any foreign land are from Dührkoop and Perscheid of Germany. We are fortunate in being able to reproduce a few of the best prints, but regret that we cannot in every case give the details of making, as is our custom.

The marines of W. A. I. Hensler always possess individuality, and those we reproduce were especially pleasing as prepared for exhibition. Unfortunately, it was necessary to make half-tones from very small prints, so that much of their breadth is lost. In both, the skies are particularly effective and form an important part of the whole, especially in "By London's Waterway," where the rift in the clouds serves as an accent over the distant dome. "Into the West" is more nearly the sort of work for which Mr. Hensler is known. There is a bigness in composition and arrangement of masses which always makes a strong appeal and gives distinction to the most commonplace material.

"The Hampshire Coast," by Frank E. Huson, conveys a strong sense of the desolation and dreariness of this lonely shore. It is excellent in tone and line; the masses are delightfully irregular, while the lines lead directly to the distant promontory which serves to emphasize the ravages of Time and Old Ocean. Data: December, at noon; poor light; Goerz Celor lens, 6-inch focus, $f/4.8$; Sanger Shepperd 6x light-filter; $\frac{1}{32}$ second exposure; imperial Special Sensitive Ortho plate; Rodinal developer; bromide print.

"Sunbeams," by John Chislett, is a remarkable example of sunlight through a mist. These effects are best secured in the autumn, and offer great possibilities to the pictorialist. Many have essayed this sort of work, but few have achieved so eminent a success as has Mr. Chislett in this particular subject. Some of the delicacy of the original necessarily is lost in reproduction.

R. Dührkoop's "Portrait of Miss L.," like most of his work, bears strongly the stamp of his rare genius. As in this particular case, the hands are almost invariably included, and made to aid the face in expressing character. This is

an important consideration in portraiture and should be given more attention by American workers.

A decidedly striking marine, and one which fulfils the requirements of its title without being too obvious, is "Departing Mists," by R. L. Sleeth, Jr. The schooner is well placed, and the picture-space well filled generally, the reflections being particularly effective. There is, however, a feeling that the camera was located too near the water, although this may be only an impression due to the personal equation. Data: September, near sunset; somewhat cloudy; single lens of Brownie camera No. 2; snap-shot exposure; Kodak film; pyro developer; enlarged negative; platinum print.

Sunlight through tender spring foliage affords one of the most beautiful of pictorial motives. We have reproduced several examples of this work in past issues of PHOTO-ERA, but "A Sylvan Scene," by A. W. Walburn, has the added charm of human interest. The figures are well placed, the contrasts of light and shadow delightfully rendered. This print carries the spirit of the season as few others we have seen seem to do.

In "Venditori di Pesce," Giuseppe Castruccio gives us another genre study of the fisher-folk of whom he is so fond. The figures, in seeking the protecting shadows of the tree, are, perhaps, a little too centrally located, and the background is certainly too "busy," yet the picture as a whole tells its quiet story in a pleasing way. Data: August, 11 A.M.; good light; anastigmatic lens, $f/8$; $\frac{1}{10}$ second exposure; Luminosa plate; metol-quinol developer; bromide print.

H. Y. Sümmons has caught and effectively shown the decorative value of a near and a distant arch which form an effective setting for "La Vieillesse," manifesting the desire of the aged to sit near the street, where one may know and see what is going on. The figure could hardly occupy a stronger position in the picture.

The "Flashlight Study," by E. F. Keller, is reproduced chiefly as an example of the soft lighting and window possibilities of combined daylight and flashlight. Data: Flashlight during the day with Reflex camera fitted with Cooke lens, Series IV, $f/5.6$, stop 16; 20 grains Agfa Blitzlicht.

"Patterdale," by B. Ward-Thompson, is notable for its successful downhill perspective, so hard to secure, but is also charming in its breadth and arrangement of masses. The subdued tone and softness of the foreground are particularly commendable. Data: October, 3.30 P.M.; fair weather, but clouds in the air; Watson's Holostigmat lens, $5\frac{1}{2}$ inch focus, $f/11.3$; 5x light-filter; 7 seconds exposure; Edwards Iso plate; metol-hydro developer; toned bromide print.

"Peonies" and "Grapes," by E. Louise Marillier, are eloquent examples of her success in still-life photography. Both are almost flawless in composition and technical treatment, and, although the result of an infinite amount of careful arrangement, both groups have the appearance of having fallen naturally into place. The original print of the grapes is toned to a veritable Concord-grape hue which is quite realistic.

The "Foreground Study" competition of The Round Robin Guild brought forth some very effective prints of exceptional beauty. "Edge of the Pool," by C. W. Christiansen, is an interesting example of the decorative treatment of trees in the foreground set off by a hazy distance. There are great possibilities along this line, and we hope to see more examples in PHOTO-ERA. Data: October, 7 A.M.; diffused light; Century 4 x 5 camera; No. 10 pinhole instead of a lens, 7-inch drawer; 12 minutes exposure; Standard Orthonon plate; pyro developer; enlargement on P. M. C. bromide No. 6.

Many pictures of the dunes have been shown in PHOTO-ERA, but Dr. Scheer's "The Road in the Sand" has the added interest of definite lines of grace, while the distant breakers in just the right spot are especially fortunate. The print is toned to produce the color of sand. Data: October, 2.30 P.M.; bright weather; Cramer Medium Iso plate; $\frac{1}{2}$ second exposure; B. and J. Ideal ray-screen; pyro-soda developer; print enlarged on platino-bromide redeveloped.

"A Wintry Road," by Paul Lewis Anderson, is strikingly original yet altogether successful in its sweep of lines and high horizon. Data: January, 10 A.M.; intense light; single landscape lens, 25-inch focus, $f/15$; 3 times filter; quick cap exposure, about $\frac{1}{2}$ second; Orthonon plate; pyro-soda developer; carbon print.

ILLEGAL FAILURES WITH P. O. P.

THERE is much amusement to be had even from patent-specifications and, since our department devoted to abstracts from them has become a regular feature of PHOTO-ERA, we have come to realize more fully than ever before the trivial nature of the ideas for which letters patent are sometimes granted by our national government. It is gratifying, however, to know that conditions here are not more to be criticized than abroad. As an instance of this we quote a paragraph from *The British Journal of Photography*.

"Last week our 'Patents' column contained an abstract of a curious patent, which suggests that the inventor is endeavoring to turn to account a rather common mishap. We frequently have queries relating to the sticking of P. O. P. prints to the glass upon which they are squeegeed for glazing-purposes, but few have probably realized that this sticking-propensity was a suitable subject for a patent. The inventor dips his P. O. P. print into water at 70 deg., and then squeegees it onto clean glass. He does this for the purpose of inducing the print to stay on the glass, whereas others in summer weather do precisely the same thing under the impression that when the print dries it

will leave the glass and show a fine, glossy surface. When the water is really 70 deg., and the print has not been hardened, the final result is a little uncertain; but in future photographers will do well to remember that when their prints stick they are infringing this patent. On the other hand, when the patentee's prints refuse to stick he will have the consolation of possessing some well-glazed results."

SEPIA PRINTS ON BLACK PLATINUM PAPER

MANY photographers like to change the initial color of their prints, sometimes getting tones more desirable for some special purpose than could be obtained on any paper direct. Sepia tones can be produced on black platinum paper by adding mercuric chloride to the developer, accompanied by glycerine to retard the action of the oxalate contained in the developer and give the mercury time to act evenly. Without glycerine double tones result. *The Amateur Photographer and Photographic News* describes the methods of W. H. Smith, of London, who seems to have had good success in this line of work. The solutions used are:

Ordinary developer	A	.....1 part
Glycerine	B	.....1 part

10 per cent mercuric chloride solution in alcohol.

Different proportions of A and B produce different tones, the larger the proportion of B the warmer the tone.

A black slightly warmer than the ordinary platinum tone is imparted by forty parts of A and one part of B. The proportion of 20 to 1 produces a good brown-black, while 5 to 1 gives a warm sepia and contains the maximum proportion of B which it is advisable to use. The prints are developed by applying the solution to the print with a soft brush or a clean rag. Very little developer is used, and the print is well under control, as the image comes up slowly and can be stopped at any point. Portions can also be stopped locally by wiping off the developer and applying pure glycerine for protection. As development proceeds a little scum is formed on the print, but it has no deleterious effect. Prints developed with a small proportion of B come out rather darker for a given depth of printing than they would in an ordinary developer, while those with a large proportion are rather lighter. The amount of reduction seems to be in direct ratio to the proportion of B in the developer. Allowance should be made for this in printing. This lightening takes place in the subsequent acid fixing-bath, but may be prevented by placing the print after development into an ordinary platinum developer for a few minutes previous to immersion in the clearing-bath. None of the solutions should be below 60° Fahr.

Mr. Smith considers prints toned in this way reasonably permanent. Prints exposed to sunlight for five months showed a slight change the first few days, but no alteration since that time.

THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

"Let poets sing of April's balmy breezes,
But 'tis my belief," says Thomas MacKellar,
"that

Spring's a wayward daughter
Whose parentage is found in clouds and water,
Or she is nature's washerwoman splashing
The earth's old clothing — suds around her
dashing."

THOMAS MACKELLAR has certainly traced the genealogy of April very accurately, and, being the child of Clouds and Water, she is the very month that the amateur loves, for these two objects in nature are the two which doubly enhance the attractiveness of his out-of-door photographs. So when Aphrodite's namesake comes dancing over the hills she is warmly welcomed by the devotees of the camera. In April the clouds are the softest and the most attractive in form, and the little streamlets, flowing full between their banks, offer the most enticing pictures of any during the year.

The law of spring is to look up and be glad one is alive; so we all rejoice when the voice of Spring is heard in the land, and her sweetest music is the gurgle and chatter of the streams as they break loose from winter's thrall.

Says Lowell,

"The brooks are loose an' — singin' to be seen,
Like gals — make all the hollers green."

The Brook in Springtime has therefore been chosen as a most appropriate subject for the April competition of the Guild.

One may make pictures of any phase or any vagary of the little streamlets. He may search out a spot where the "brooklet ripples clear, through the willow shadows," or he may find a place where "down a little freshet springs from mossy trough."

Perhaps the place where

"April brooks have scooped out fairy bays
In the willow-wattled bankside,
Or by alder-shaded nooks,"

may appeal to one's fancy more, or he may like the place where in the still pool formed by a bend in the brook "the willow watches as in a mirror its own sprouting." But no matter whether one pictures the merry brooklet stop-

ping to chatter with its friends along the bank and making many turnings and windings by the way, or whether he seeks to represent it where it runs swiftly down its white stone courses, he will be sure to get a picture that is worth while.

After the successful negative has been made and the print finished comes the important question of mounting it in an attractive and pleasing way. If one has an eye for color-effects he can use a paper which will greatly enhance the pictorial merits of his print. For instance, if a gray print delicate in tone and outline is mounted on a certain shade of deep blue it suggests color in the print. Then there is a dull green which is specially effective when used with a print of a bit of woodland. It seems to bring out the roundness of the tree-trunks, an important matter in the photographing of trees. More often than not the trunks of the trees have a perfectly flat appearance, owing partly to the shadows not having received proper attention and partly to the manner or style of the mount.

One thing which should be borne in mind is that one must not be niggardly with margins. A wide margin even on a small print helps to give the effect of breadth, while a small mount seems to contract and diminish the size of the picture.

Many a time and oft has the editor emphasized the fact that a picture must be placed above the center of the mount to avoid the optical illusion that the top margin is wider than the lower margin — an illusion which invariably occurs when the print is placed in the center of the mount. A safe rule to follow in mounting a print is to have the top and sides of the mount at equal distances from the print and let the bottom margin take care of itself, provided, of course, one is using a large-sized mount.

A very important feature of sending prints to the monthly competitions, and one that is often neglected, is the labeling of the print. Each separate print, whether one sends a single print or a dozen, should be marked on the mount with the name and address of the sender, the title of the print, and the competition for which it is intended. In a separate letter the amateur should write that he is sending such and such pictures, and give complete data regarding each.

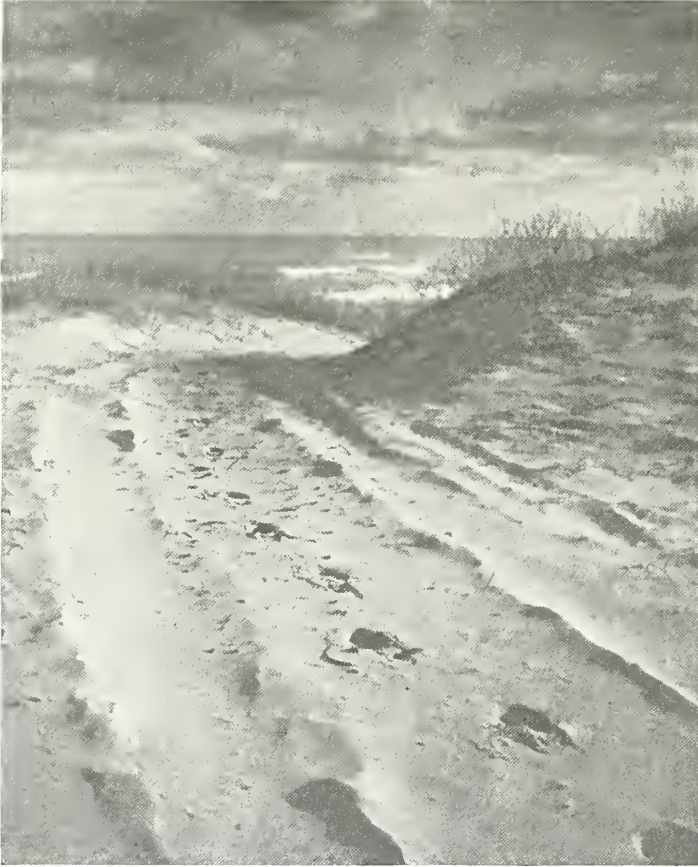
The simplest way to do in sending prints is to mark each one as directed, place the return



C. W. CHRISTIANSEN
EDGE OF THE POND
FIRST PRIZE — FOREGROUND STUDIES



THIRD
PRIZE
FOREGROUND
STUDIES



GEORGE H. SCHEER, M.D.

THE ROAD IN THE SAND

stamps in a small envelope and paste that to the back of the mount. If one sends several prints, mark each one "Postage sent for return."

In sending prints for criticism — and a great many come daily — the senders are requested to mark each print with name and address. These precautions in the sending of prints will not only ensure a safe record of the amateurs to whom they belong, but also a safe return to the senders.

SNAP-SHOT WORK

WHEN the hand-camera first made its appearance it was regarded as a sort of refined toy, the more serious matter of real picture-making being reserved for the view-camera, which required a tripod for handling, and which was fitted with more or less complicated appliances. Times have changed, and the hand-camera has grown steadily in favor, and in its improved mechanism has almost, if not quite, superseded

the view-camera for all pictures except those taken on large plates.

To make pictures worth while with the hand-camera one must not only be skilled in the management of his instrument, but he must also apply the same principles of composition to his pictures as he does to those taken with a view or stand-camera. He must learn to judge light-values, must be able to estimate distances, to decide quickly whether the picture is worth while, and so arrange objects in his view-finder as to get them in their best positions.

This sounds formidable in the reading, but, knowing how readily the mind learns to comprehend and judge, and how speedily the hand obeys its behests, it is only a matter of practice.

One of the factors of success in instantaneous work is to adopt one brand of plates and stick to it. One knows then just what he may rely upon when stops and lighting are taken into account.



PAUL LEWIS ANDERSON

A WINTRY ROAD

SECOND PRIZE — FOREGROUND STUDIES

The trouble with half — yes, more than half — of the pictures made with a hand-camera is that one allows himself to be easily turned aside from his original purpose. It is so simple a matter to expose a plate or a film that one is likely to waste his material on what are useless subjects. One always succeeds better who has a definite aim and adheres to it. This latter statement is the key to all successes.

Not long ago an ardent amateur set forth to make snap-shots of street-children — the little gamins of the gutter. He chanced on just the pair he knew would make a very interesting picture, and “stalked” them for nearly two hours before he caught them in just the right pose. The camera was ready and the exposure instantaneous and, later, the picture was sent to an exhibition in Philadelphia, where it won first prize in “Genre Studies” class. It was a snap-shot, pure and simple, but it was the result of a definite object pursued until it was attained.

There is one feature in snap-shot work which would seem to be practically beyond the control of the amateur, and that is the background. It is within his control in an after-manipulation of the plate by the means of reducing-mediums and a skilful hand with the brush. Undesirable backgrounds can be modified, altered and even blocked out entirely and a new one worked in; lines can also be changed or added to help the

composition of the picture. Certain situations should be avoided, one being the photographing of a figure against a blank sky; for though the illumination may fall directly upon the figure, the face against the sky background will still be rendered unnaturally dark.

For snap-shot work the focal-plane shutter is conceded to be the choice, as it gives the greatest amount of light for the time of exposure, and the plate receives a uniform exposure. It moves so smoothly that there is no danger of jarring the camera during the exposure, which is the fault of some shutters and causes blurring of the image. The movement of the shutter is so rapid that it is wise to use the largest opening, as the shutter has slits of different widths and passes before the plate something after the fashion of a roller blind, and instead of exposing all parts of the plate at once really exposes it in sections.

Each amateur has his own way of holding his camera when making exposures. If there is a short time-exposure to be made, one of the most convenient ways of keeping the camera steady — inferring, of course, that one has no support for it — is to take it under the left arm and, just as the exposure is to be made, exhale deeply and simply hold the breath till the exposure is made. It helps materially if there is some convenient object near against which to steady the body, or, better still, to brace the camera.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

RULES

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. *A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.*

5. *Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.*

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

SUBJECTS FOR COMPETITION

March — "Historic Pictures." Closes April 30.

April — "The Brook in Springtime." Closes

May 31.

May — "Farming-Scenes." Closes June 30.

June — "My Favorite Poem." Closes July 31.

July — "Outdoor Pastimes." Closes August 31.

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The laggard is he who neglects to subscribe to PHOTO-ERA.

AWARDS — FOREGROUND STUDIES

First Prize: C. W. Christiansen.

Second Prize: Paul Lewis Anderson.

Third Prize: Geo. H. Scheer, M.D.

Honorable Mention: D. H. Brookins, E. T. Wood, F. F. Sornberger.

Other contestants who submitted highly meritorious work were: Wm. S. Davis, W. F. Zierath, M.D., J. H. Field, and Dr. W. A. Rawson.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

L. A. S.— Do not try to coat glass with gelatine. Take some of your spoiled negatives and soak them in a solution made of potassium ferricyanide and hypo till the blackened silver has been dissolved, then wash and dry your plate and you will have a glass coated evenly with gelatine at half, yes, at one tenth, the trouble of coating. Dissolve an ounce of potassium ferricyanide in eight ounces of water, and an ounce of hypo in eight ounces of water. Mix equal quantities of each and soak the plate in this until clear.

H. D. FOWLER.— Photographs to be reproduced in PHOTO-ERA should be sent to the home office at least two months before the date on which they are to appear. Prints for criticism should be sent a month before the issue of the magazine. If you wish a criticism in the May issue the print should reach the editor by April first. The print which you enclose of the intake where Seattle gets its city water is interesting as showing its location and the power of the fall, but not particularly so as a picture. Always include a bit of the sky in a landscape.

A. KASTENDIECK.— The vertical lines which appear on your negatives which you say were developed in a tank, time development, are doubtless due to the developer acting unevenly on the film during the process of development. The makers of this plate, Cramer, advise first soaking the negative in clear water before placing it in the tank. This will obviate all difficulty of this kind.

MRS. F. CASSIDY AND OTHERS.— Have you tried the P. M. C. bromide papers for enlarging? They come in five grades—thin smooth; heavy smooth; heavy rough; glossy paper and matt surface. Royal bromide also makes very beautiful enlargements.

F. W. W.— The prices paid for photographs by the illustrated papers range from two to five or ten dollars. Other pictures of the higher grade of illustrating come as high as one hundred dol-

lars. It depends on the subject, and largely on the reputation of the artist.

JAMES B.—To copy a negative from a negative, make a positive by contact-printing the same as a lantern-slide, or copy it with the copying-camera. The former is the simpler way. To block out the background of a negative, paint over it on the glass side with opaque paint, Gihon's opaque being perhaps the easiest to use. It requires care rather than skill. First work carefully around the outlines and then paint in the remaining glass with thick paint.

GEORGE T. L.—Evidently you have used a dish for developing which has been used for hypo and become impregnated with the salts. Hypo is very penetrating and glass or porcelain dishes become saturated with it after having been used for a long time. Your remedy is to buy a fresh toning-tray and use it for nothing else but toning.

BERTHA B.—It used to be the practice to save old developer and use it again, but this custom has fallen into disuse owing to the deterioration of the developer, so that one could not judge how much or how little to use. Old developer acts as a restrainer, and if not kept too long will not oxidize. The developer for platinum prints can be used repeatedly, as it does not seem to lose its strength. After developing the prints turn the developer into a bottle and, when ready to use again, decant it off until it begins to run muddy. The sediment settles at the bottom, and with care one need not filter the solution. With the sepia solution the old or used developer seems to give better results than the freshly mixed.

C. D. S.—By all means take a film-camera on your trip abroad. It is lighter to carry in itself, the films are so wrapped that they withstand the sea voyage better than the glass plates and there is no danger of the breaking of a valuable negative. One can carry a large quantity of films in a very small space. I would advise taking plenty from this side; for though they can be bought in any large city, it is wiser to supply one's self before leaving home.

SARA T.—Solutions for sensitizing fabrics can be bought ready prepared, or if you prefer you can mix them for yourself, and if you will look in the June PHOTO-ERA, 1907, you will find directions and several formulae for sensitizing cloth.

HELEN K.—A good acid fixing-bath is made of four ounces of hyposulphite of soda, one-fourth ounce of acetone sulphite, and sixteen ounces of water. Wash plates well after fixing. Alum in the fixing-bath hardens the film and renders it less liable to scratches.

L. L. P.—The trouble with your prints made on the Eastman sepia paper is, first, that they were over-printed, and, second, that the hypo solution was too strong. The strength of the hypo should be only a grain and one-half of hypo to an ounce of water. Do not carry the printing-process farther than just to get the faint outlines of the picture. It develops up immediately and if over-printed you have muddy

prints of an ugly yellow-brown like the sample which you enclose.

FRED. JEPSON.—Bottles may be cleansed with small shot, filling the bottle about half full of warm suds, putting in the shot and shaking well. Small fragments of egg-shell will also clean a bottle quickly. Adding a little washing-soda to the water helps remove the filmy appearance of the glass which certain solutions impart.

MISS S. ELLIOTT.—To mount prints in optical contact on glass, soak one ounce of gelatine in fifteen ounces of warm water, clean the glass well, put both print and glass in a tray and turn over them enough of the gelatine solution to cover them well. The liquid should first be warmed a little. Adjust the print on the glass under the solution, then lift both out together and squeeze the print to the glass to force out any possible air-bells. Glycerine in the proportion of one-half ounce to twelve or fifteen ounces of water used in the same manner will answer almost as well as the gelatine, provided one has not the latter conveniently at hand.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"A COUNTRY ROAD," C. R. M.—The point of view is not well chosen on account of the road cutting the picture quite in half. If the camera had been placed a little to the right so that the road entered the picture at an angle the effect would have been very pleasing. The location seems full of artistic possibilities, so it is worth while to try again at an earlier or later hour, when the shadows are longer, and on a day when there are clouds in the sky. A figure walking along the road in the middle-distance would help the composition very much indeed.

"THE SILENT SENTINEL," A. B. M.—This picture shows in the immediate foreground a tall trunk of a tree stripped of its bark and having a few small dead branches along one side. It stands on the slope of a hill, and the view is down the hill and through a valley which evidently extends for many miles. It would have been a very interesting picture if it had greater contrast, but the plate was evidently over-exposed. Printing on gaslight paper of the sort sensitized for contrast might give better results. Accompanying this print were three others, all interesting, but over-exposed.

"GIRL READING," A. E. B.—This is a very tiny print but a very well-taken picture. It represents a girl reading and, though the back-

ground is very much broken and spotted, it does not give one an uneasy feeling to look at it. The expression of the girl, the pose and the lighting are all good. It is worth enlarging, but in doing so the background would have to be toned down somewhat, as in the larger print it would be more obtrusive.

"BUSHNELL PARK," E. J. C.—The point of view is well chosen, the lines being specially harmonious, leading up as they do to a sort of mediæval-looking tower in the middle-distance. Exposure is correct and the mechanical finish of the print well done. The criticism would be that the sky shows no clouds whatever, which detracts from the artistic merit of the picture and shortens the perspective. The print is made with rounded corners, being printed through a mask. It would be better to leave the corners square and to mount the print on a soft colored mounting-paper instead of on the conventional card.

"THE BIBLIOPHILE," J. M. R.—This is a beautifully finished and mounted picture, and represents a gentleman turning the leaves of a ponderous tome. This picture would be admirable were it not for the dark streak in the background, which rises just back of the subject's head and extends to the top of the picture, cutting it in half. The defect can be easily remedied by penciling out and lightening the shadow, making it of the same density as the

wall at the right of the sitter. The hands in this picture are especially well managed, but the lighting of the face is not as good as it would have been had there been a little light on the cheek farthest away from the window. This correspondent sent several prints all beautifully finished, and some of them especially interesting, "Reading the News" being one of them. This is taken out-of-doors, and shows an elderly gentleman sitting in a chair on the lawn reading his newspaper. Unlike most pictures of this kind, the high-lights are well subdued. The background is a house, but so far away from the subject and so much out of focus that it is very pleasing in effect. "The Old House of St. Augustine" is one of the best of pictures of its kind, and is booked for our Historic Guild Collection.

"FAR FROM THE IGNOBLE STRIFE," C. B.—This is one of the most charming child studies that has found its way to the editor's table in many a day. It represents a child sitting at an upper window looking down into the street with a wistful expression on her face, that one might try a hundred times and never catch again. There is an air of absorbed attention about the whole figure, giving the impression that she is quite unconscious of her surroundings. The modeling is excellent, the shadows full of detail and the high-lights soft, and there are no abrupt divisions between lights and shadows.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast Seed 23
Class 1	Class 1 1/2	Class 4
AnSCO Film, N. C. and Vidil	Eastman Extra Rapid	Stanley Commercial
Cramer Crown	Hammer Extra Fast	Class 5
Cramer Crown Non-Halation	Hammer Extra Fast Ortho	Cramer Commercial
Cramer Instantaneous Iso	Hammer Non-Halation	Defender Non-Halation Plain
Cramer Inst. Iso Non-Halation	Hammer Non-Halation Ortho	Defender Non-Halation Ortho
Cramer Isonon	Seed 26x	Defender Ortho Slow
Cramer Trichromatic	Seed C. Ortho	Hammer Slow
Defender King	Seed L. Ortho	Hammer Slow Ortho
Defender Ortho Inst.	Seed Non-Halation	Class 8
Eastman N. C. Film	Seed Non-Halation Ortho	Cramer Slow Iso
Ensign Film	Standard Extra	Cramer Slow Iso Non-Halation
Hammer Special Extra Fast	Standard Orthonon	Class 12
Imperial Special Sensitive	Class 1 1/2	Defender Queen
Imperial Orthochrome Special Sensitive	Lumière Ortho A	Seed Process
Kodoid	Lumière Ortho B	Class 100
Magnet	Lumière Panchro C	Lumière Autochrome
Premo Film Pack	Class 2	Lumière Red Label Slow
Seed Gilt Edge 27	Cramer Medium Iso	
Standard Imperial Portrait	Cramer Medium Iso Non-Halation	
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For April

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of April, on any fine day between 10 A.M. and 2 P.M. when the sun is shining brightly and the lens is working at $f/8$, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if $f/11$, U. S. No. 8, is used; also from 8 to 9 A.M. and 3 to 4 P.M. Treble it when the light is rather dull, and from 7 to 8 A.M. and 4 to 5 P.M. Increase it four times when there are heavy clouds and very dull light, or if $f/16$, U. S. No. 16, is used. For $f/5.6$, U. S. No. 2, give half. From 9 to 10 A.M. and 2 to 3 P.M. increase the exposure one-fourth. From 6 to 7 A.M. and 5 to 6 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds	1/1280	1/640	1/512	1/400	1/320	1/256	1/160	1/128	1/100	1/80	1/50	1/6
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds	1/640	1/320	1/256	1/200	1/160	1/128	1/80	1/64	1/50	1/40	1/25	1/3
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds	1/320	1/160	1/128	1/100	1/80	1/64	1/40	1/32	1/25	1/20	1/12	2/3
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes	1/160	1/80	1/64	1/50	1/40	1/32	1/20	1/16	1/12	1/10	1/6	1 1/3
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away	1/80	1/40	1/32	1/25	1/20	1/16	1/10	1/8	1/6	1/5	1/3	2 2/3
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/40	1/20	1/16	1/12	1/10	1/8	1/5	1/4	1/3	2/5	3/5	5 1/3
Portraits outdoors in the shade; very dark near objects	1/20	1/10	1/8	1/6	1/5	1/4	2/5	1/2	3/5	4/5	1 1/5	11
Badly-lighted river-banks, ravines, glades and under the trees	1/10	1/5	1/4	1/3	2/5	1/2	4/5	1	1 1/5	1 3/5	2 2/5	21
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	3/10	3/5	3/4	1	1 1/5	1 1/2	2 2/5	3	3 3/5	4 4/5	7 1/5	64

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

MAKING THE MOST OF EVERY EXPOSURE

IN a recent issue of *Photo-Revue* those tireless experimenters, the Messrs. Lumière, made public their new method of factorial development, which is certain to win for it many advocates among those who have hitherto eschewed this line of procedure. The method permits of correcting over-exposure and ameliorating under-exposure, and is dependent upon the variation of the time of development and the quantity of alkaline solution added to the developer according to the time of exposure. It differs from the method of Watkins in that the initial developer is very weak in alkali.

In the Watkins method a normal developer is employed, with the result that the times required for the appearance of images show but slight variations for great differences in exposure. Thus it becomes very difficult, if not impossible, in the case of over-exposure, especially if slight, to determine the exact time of first appearance of the image. Moreover, the composition of the bath being constant, the time of development presents the only means of correcting the effects of under and over-exposure, and it is impossible with this limited means of control to make the most out of every exposure.

In the Lumière method an initial developer containing only half strength of alkali is used to accentuate differences in the times of appearance of images according to the various times of exposure. The time elapsing between the application of the developer and the first appearance of the image determines the exact relative proportions of the reducer and alkali which should be present in the developer to produce the best possible result from any particular exposure; and, likewise, the exact quantity of one or the other which should be added to the initial or trial solution to produce those proportions. This information has been arrived at experimentally by the Messrs. Lumière, and, since the time of appearance varies with different brands of plates, it has been calculated for three different Lumière emulsions, the results for Sigma plates being recorded in the table below. A little careful experiment, however, would enable one to adapt the method to any brand of plates. This could be done to advantage, especially by the beginner — not only because it is possible to secure from a plate eight times over-exposed practically as much brilliance in the negative as from one which has received correct exposure, but also because of the educative value of knowing ap-



MESSRS. A. AND L. LUMIÈRE

proximately the degree of over or under-exposure.

The formula advocated by Messrs. Lumière is made up as follows:

A

Water 1000 c. c.
Pyro 30 grams
Commercial sodium bisulphite 10 c. c.

B

Water 1000 c. c.
Anhydrous sodium carbonate 35 grams
Anhydrous sodium sulphite 75 "
Potassium bromide 5 "

The normal developer contains one part of A, two parts of B and nine parts of water; but for this new method only one part each of A and B are used with nine parts of water for the trial solution.

DEVELOPMENT TABLE
Temperature 50° to 63° Fahr.

Time required for first appearance of image on Sigma plates Minutes and seconds	Degree of Exposure	Solution to be added immediately after first appearance of image	Total time of develop- ment Minutes
2.25 to 2.40	8 times normal	20 parts A	18
2.41 to 3.15	4 times normal	10 parts A	18
3.16 to 3.30	2 times normal	Nothing	15
3.31 to 3.50	Normal	10 parts B	12
3.51 to 4.15	½ normal	15 parts B	13
Longer	¼ normal	20 parts B	13

ENSYNA PAPER

BEGINNERS in photography will be delighted to learn that a new gaslight paper, producing the effect of P. O. P., matt or glossy, has been placed on the English market and that with it over-exposure seems to be unlikely. This is Ensyna, manufactured by Austin Edwards, in England, and to be handled, within a short time, by G. Gennert, of New York City.

The process is exceedingly simple, calling for no toning or troublesome manipulation, and requires only five minutes to produce a finished print. The printing-time ranges from one to five seconds by daylight or twenty to sixty seconds by gaslight. There is little danger of over-exposure, since an increase of twenty to thirty times normal causes no change other than a variation of color. A beautifully rich print, having the appearance of gold or platinum toning, is always the result; there is no flashing up of the image; it builds up definitely and gradually in the developer and loses nothing in the fixing-bath.

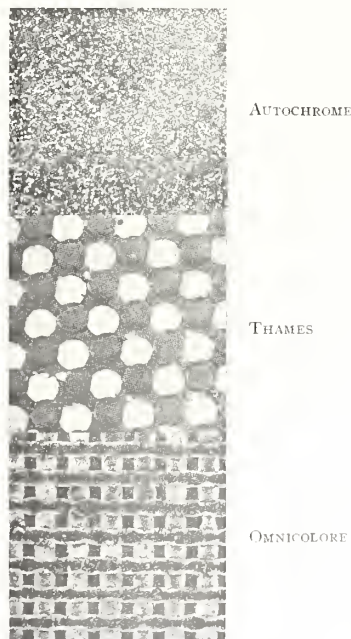
Only the specially prepared Ensynoid developer may be used. This contains metol, but the ordinary gaslight developer is of no service, because the development of Ensyna is more physical than chemical. The silver which produces the image is carried by the coating of the paper in the form of silver phosphate; it is dissolved by ammonium sulphocyanide in the developer, and precipitated again in proportion to the degree of light-action on each portion of the image. Fixation requires thirty seconds, but two minutes final washing is sufficient, after which the print may be hung up to dry.

The same color, ranging from purplish black to warm brown or red, can be produced any number of times, and this widely varying range requires no additional manipulations. The color is controlled entirely by the exposure, and the longer it is the warmer will be the color. Whatever the tone decided upon, the finished print is ready for wet-mounting in five minutes after the paper is placed in the printing-frame. No dark-room, red or yellow light is required.

THE OMNICOLORE PLATE

WITH the new year there appeared upon the French market the Omnicolore plates of Messrs. Jouglé, prepared along lines worked out by Ducos du Hauron and de Bercegol and which have been in an experimental stage for some time. *Photography and Focus* describes the plate as consisting of a very fine network of violet lines in one direction crossed by red and green lines at right angles. The violet lines average about 230 to the inch, and the red and green about 210 each, so that they can be distinguished only when the plates are examined very closely. Over this color-screen is placed the sensitive coating of gelatine, which, when treated much as other screen-plates, produces a transparency in colors. The Omnicolore is about twice as fast as the Autochrome and is much more transparent than either the Auto-

chrome or Thames plate; but in respect to the fidelity of color-rendering and residual color in the screen the Autochrome seems to be superior. The Omnicolore reproduces colors faithfully, with the exception of green, for which the screen is not yet perfectly corrected; but in rendering the more subtle shades the Autochrome easily holds first place. Regarding residual color, the Omnicolore shows a salmon tint varying with the angle of vision; the Thames presents a similar blue tint, while the Autochrome is overcast with a nondescript olive. This latter tint, however, is more neutral than the others and less objectionable. The new plates are, of course, exposed through the back, and a special light-filter must be used on the lens. Manipulation is simple, being confined to development, reversal, redevelopment and fixing. The reproduction which follows, for which we are indebted to *Photography and Focus*, is interesting as showing the comparative structure of the screens of the three color-plates now on a practical commercial basis. At the top is the Autochrome; below, the Thames, and at the bottom the Omnicolore. All have been enlarged equally.



ELIMINATING PAPER-TEXTURE

PHOTO-ENGRAVERS often smear vaseline uniformly over prints which have a pronounced texture, in order that the irregularities of surface will not reflect light. This same dodge may often be employed by the photographer when copying is to be done.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are provided by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

January 19, 1909

910,052. FLAT-FORM PHOTOGRAPHIC FILM-PACKAGE. ALEXANDER J. FINKLE, Williamsburg, N. Y.

An improvement upon the film-pack patented May 19, 1903, by C. E. Hutchings and J. A. Robertson, No. 728,718. Instead of one envelope into which all the films are pulled after exposure, each film has a separate envelope with a flap, so that any one may be removed from the package and the flap turned over and sealed, giving protection from the light until it is desired to develop it. The films may also be kept in these envelopes after development. Each film also has a protecting cover of black paper to prevent accidental fogging or exposure while handling the camera. This is pulled away before exposure by a tab similar to that of the backing-paper on which the film is mounted.

910,122. AUTOMATIC PHOTOGRAPHIC PRINTER. WILLIAM FITTERLING, Palisades, Col.

This device consists of a light-box within which is located an incandescent lamp which furnishes the light for printing. In line with the lamp is a circular opening in one side of the box, and over this works a shutter which is automatically held open for any duration of time, depending upon the adjustment of a turning-device operated by a clock-work motor. The printing-frame, holding the negative and sensitive paper, is held outside the printer and in line with the light-opening by a suitable adjustable carrier.

910,230. PHOTO-EXPOSURE METER. SEDGWICK PRATT, Pasadena, Cal.

A compact meter of the revolving disk type which requires no sensitive paper, but depends upon the intersection of lines having a predetermined relation to each other and to numbered scales. Its chief advantage is that it is adapted to use in all latitudes. It also serves several purposes other than that of calculating photographic exposures. For instance, the altitude of the sun may be found in any latitude; likewise, the mean time of sunrise and sunset, and many other bits of information. It is also possible to find the correct exposure for any sort of photographic work without knowing either latitude or time of day.

910,322. PHOTOGRAPHIC ENLARGING-APPARATUS. MAX SCHÜLTZE, Berlin, Germany.

The chief feature of this patent is an actinometer built into an enlarging-camera adjacent to the lens and between it and the negative-carrier, which does away with the necessity of making trial exposures on test-strips. Being constructed much like a tiny plate-holder, the actinometer is light-tight yet accessible from the outside. The sensitive paper is inserted through a slot, a protecting-slide is withdrawn and light from the negative shines through a small opening onto the paper. The intensity of light which reaches this actinometer is always proportional to that projected through the lens onto the bromide paper, so that a standard tint may be adopted which will indicate correct exposure for a normal negative and a certain brand of bromide paper.

To compensate for different ratios of enlargement or papers of different degrees of sensitiveness, diaphragms of various sizes may be provided in the lens, or slides made of more or less transparent material may be placed over the actinometer.

January 26, 1909

910,750. CAMERA. BERTRAM O. WALKER, Tacoma, Wash.

A camera-back for making several pictures on one plate by means of an exposure-opening in a horizontally movable slide which may be passed through a guideway from either side so that the exposure-opening may be moved across the top of the plate, then reversed and moved across the bottom.

910,832. BLUE-PRINTING MACHINE. CHARLES DE LUKACEVICS, New York City.

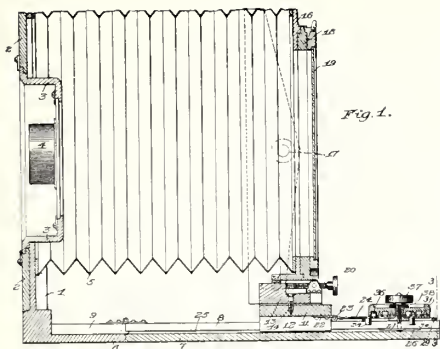
A machine for making blue-print copies of sketches and plans on a large scale commercially; it may also be used for printing photographs from film negatives. Mercury vapor lamps are used, and a fan and other means are provided to secure a circulation of air through the lamp-enclosure for cooling-purposes. The transparencies and printing-sheets are carried through the machine by endless belts which pass along the surface of a glass partition, on the other side of which are located the lamps. By varying the speed different depths of printing may be obtained, or different densities of the transparency may be compensated for. The apparatus provides for simultaneous printing both above and below the lamps, and at different rates of speed, if desired.

910,990. METHOD OF PRODUCING PHOTOGRAPHIC REPRESENTATIONS OF STRUCTURAL DESIGNS. CHARLES CLEMENTS, Boston, Mass.

This patent covers a method of producing representations of structural designs intended to convey to the average mind an adequate idea of the texture, grain or other superficial characteristics of the materials to be used in the finished structure. It consists in drawing the design as usual, cutting away portions of the paper within the outline of the design, arranging behind the resulting openings surfaces presenting the natural appearance of the material to be used in the finished structure, the details being of exaggerated proportion in relation to the dimensions of the design, and finally photographing the composite surface so formed.

911,001. FOCUSING-ATTACHMENT FOR CAMERAS. W. F. FOLMER, Rochester, N. Y. Assignor by mesne assignments to Eastman Kodak Co., Rochester, N. Y.

The cut shows in open position a folding camera having a stationary front in which the lens is recessed and a sliding back carrying the ground-glass 19, on which the image is to be focused. This back is pivoted for both vertical and horizontal swings. For the sake of compactness in folding the focusing-mechanism 31 is hinged at 23. A clamping-screw 37 holds this mechanism in place on the grooved track 8 after an approximate focus has been obtained by drawing out the movable back 11, but still per-



mits the focusing-knob 31 to be turned. On the under side of this knob is cut a spiral cam-slot 37, in which slides the stud 36 on the hinged tongue 24. It will thus be seen that by revolving the knob 31 the ground-glass 19 is made to advance or recede, as desired, to bring the image into exact focus. The sensitiveness of the cam mechanism with respect to fine focusing may be developed to any desired degree by regulating the radial increase per revolution in the form of the slot.

911,070. MACHINE FOR MOUNTING PHOTO-PRINTS AND SIMILAR ARTICLES. J. RENZ, St. Louis, Mo.

The machine comprises an intermittently moving carrier 1 with arms 2, provided with pick-up devices 14, in which a suction is created by a suitable means so as to remove photo-prints from a pile A and carry them around to the mounting-table 57; rollers 36 and 46 for applying and partially drying glue on each print as the carrier-arms revolve step by step, a quarter revolution at a time; and means for pressing the prints upon a card-mount or other object B. As a result of the step-by-step movement produced by a cam-and-pin mechanism which automatically connects the shaft 1 and gear 3 and then disconnects them after the shaft has made a quarter revolution, the pick-up devices 14

are progressively brought into alignment, first, with the table 25, carrying the pile of prints; then with the glue-coating roller 36; next with the drying-roller 46, and finally with the table 57, on which the card-mount is placed. Each time the carrier-arms come to rest the table 25 moves upward to present a print to the pick-up device above, and the table 57 also moves upward to press the card-mount against a print held by the pick-up device above it, the operator feeding the mounts onto the table and removing them after the prints are attached.

February 9, 1909

911,710. KINEMATOGRAPH APPARATUS. ROBERT A. FAUCONNET, Paris, France.

This machine provides an ingenious method of taking and projecting moving-pictures by means of flat plates, each of which carries about one hundred and fifty images photographed serially in rows, one row above another. By adequate gear-driven mechanism the plates are brought forward as required, each image is fed across the projection-aperture in serial order and the plates are dropped down to a carrier which places them in a container provided for that purpose.

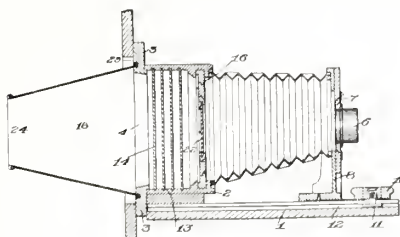
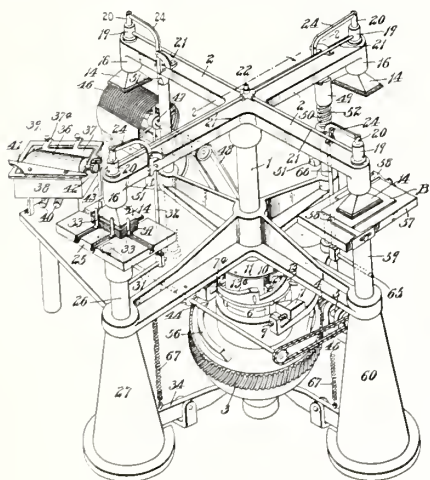
912,137. KINETOSCOPE. CARL J. LANG, Olean, N. Y.

A machine for the projection of moving-pictures in which are several improvements. Among them may be mentioned a vertically adjustable frame by means of which the film may be brought to proper position with respect to the aperture-plate; a friction-clutch for taking up the film on the receiving-reel, which gives the proper tension and allows slipping when necessary to avoid breaking the film; a means by which the tension and position of the presser-bars may be regulated, and a revolving-shutter and cut-out plate, rotating in opposite directions, which throw shadows in such a way that flickering of the picture on the screen is prevented.

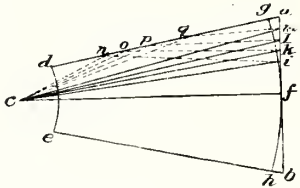
February 16, 1909

912,299. PROJECTION APPARATUS. WILLIAM F. FOLMER, Rochester, N. Y. Assignor to Eastman Kodak Co., Rochester, N. Y.

As shown by the sectional drawing, this apparatus is an enlarging-camera of the ordinary type, except that the necessity for condensing-lenses has been done away with by a reflecting light-hood 18 back of the diffusion-plates 14, having an opening 21 for the introduction of light, such as the electric arc. The inner walls of the hood, constructed of sheet metal and rendered reflective by a white coating, are so proportioned and arranged that the reflected light strikes the diffusion-plates, and hence the negative, at the same points as do the weaker direct marginal rays. The



latter are thus reinforced to a strength equaling the intensity of the substantially axial rays traveling a shorter distance. This is clearly shown by the second drawing.



912,352. OBJECTIVE. WALTHER ZSCHOKKE, Steglitz, Germany. Assignor to Optische Anstalt C. P. Goetz Aktiengesellschaft.

A four-lens objective built up of two uncorrected halves, each comprising a positive and negative lens separated by an air-space having the form of a positive meniscus. Great effective area and a very good state of correction for chromatic and spherical aberration are secured by making the refractive power of the negative lens in each half smaller, or equal to but not greater, than the refractive power of the positive lens, and also by making the focal length of one half at least double the focal length of the other.

912,365. KINEMATOGRAPH. HARRY JAMIESON CRUDGE, Quebec, Canada.

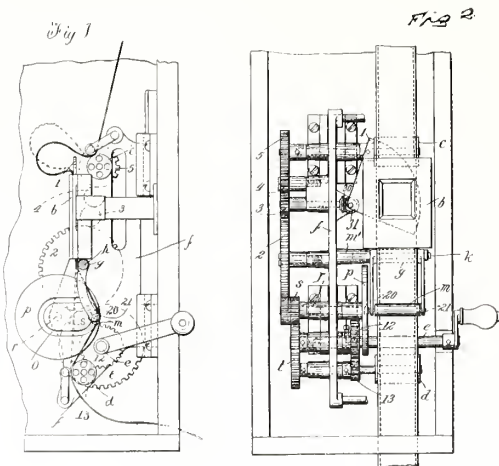
It is the object of this invention to provide a means of intermittently moving the film past the lens, adapted to act gently upon the film, and allow it to dwell for a brief period each time a picture arrives in correct position opposite the

are secured for one of the driving-shaft *e* and four beats of the arm *g*. The cam-groove is shown clearly in Fig. 1, and is in the form of an oval with flat sides and semicircular ends, one of which latter is concentric to the disk and, consequently, causes the arm to dwell while such concentric portion is being traversed by the trundle-roll 20, the film remaining stationary during that interval and also during the time the arm takes to return from the film to the said dwell in the cam. While the film is thus remaining stationary the shutter will be out of the line of the lens, and the required exposure thus made.

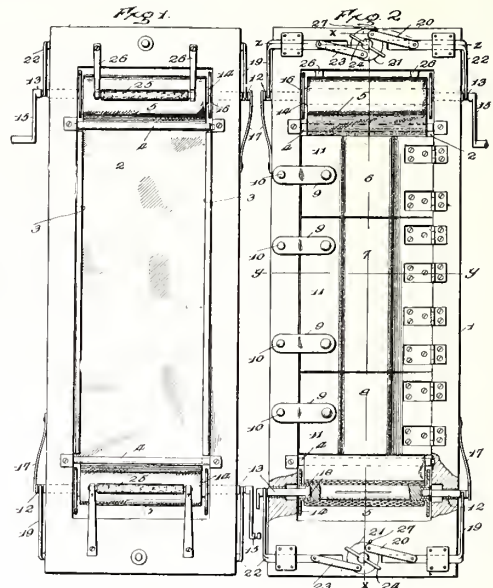
912,524. PRINTING-FRAME. NEWTON H. BAIRD, Elizabeth, Col.

After a roll of film has been exposed and developed it may be printed by fitting the roll between the spindles 12 and 13 at one end of the frame and drawing a length of the film from the roll and attaching the end to the spool at the opposite end of the frame. The sensitized paper is placed upon the film and held in place by closing the doors, 6, 7 and 9. As the printing progresses, the film may be drawn from one roll or spool and wound upon the other by turning the crank 15. The film may be moved backward or forward by turning either one of the two spools or rolls. It is further noted that while the frame is particularly designed for printing from a roll of films, nevertheless it may be advantageously used for printing from cuts or single films.

The roll 25 prevents unwinding of the film should the latter, from any cause, become loosened. The spring 17 serves to press both spindles 12 and 13 inward through the intermediate connections 19, 22, 20, 23 and 21, thereby insuring the firm gripping of the spool. A stop 27 is adapted to engage the thumb-piece 24 and limit the movement of the same in one direction so as to hold the spindles 12 and 13 separate when it is required to remove a roll or place a new roll in position.



lens. The mechanism consists of a furcated oscillatory arm *g* pivoted at *k* and having a roller *m* mounted in the ends of its prongs. This arm is oscillated by a cam-groove *o* cut in a disk *b* and operated by the spur-pinion *s*. This pinion forms part of a train of gears connecting the driving-shaft to the whole mechanism, the members being of such proportions that two rotations of the feed-drum *c* and take-up drum *d*



NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions
are solicited for publication

MOVING-PICTURES CENSORED

THE closing of moving-picture shows by the local authorities of cities throughout the country goes on apace. In some cities no films may be projected unless approved by the censor. All this is very praiseworthy so far as the moral side of the question is concerned; but how about the technical side? It is a pity that this cannot be approved, also. If only the photographer, more especially, the amateur — as he has better opportunities than the professional — could bring to bear his artistic and technical knowledge and personal influence on this important question, much practical and permanent good could be effected. Cinematography would then be raised from the slough of degradation into which it has fallen — all due to the greed and indifference of the purveyors of this form of entertainment.

PIONEER ARTIST DIES

CHARLES R. SAVAGE, the pioneer photographer of Utah, died in February, at his home in Salt Lake City. For more than half a century he was a leading photographer of the West, having joined a party of Mormon immigrants in the early fifties and tramped across the plains with an ox-train from Philadelphia, where he had been working in a studio. Since that time he has been closely, though not prominently, connected with the Mormon Church, but as a photographer his name is more widely known. His portrait studio in Salt Lake City was sought by most of the historical personages of the West, while his early landscape work, particularly in his capacity of official photographer of the Union Pacific and Rio Grande Railroads, is still highly prized for its scenic value. The loss of Mr. Savage's influence for good in politics and his generosity toward the old and needy will be deeply felt. He is survived by ten children.

P. P. S. OF N. Y.

THE coming convention of this society, to be held in the Metropolitan Life Insurance Building, New York City, April 7, 8 and 9, promises to be better than in previous years. With commendable sagacity it has been decided to open the exhibition of pictures to the press and public. Certainly such a course gives prominence to any society, dignifies photography as an art and impresses the importance of the profession upon the public. Practical demonstrations will be among the chief features of interest, especially as they will be conducted by such well-known persons as Mrs. Käsebieber and Messrs. Core, Harris, Puffer, Hoyt, Pierce, Phillips and others not yet announced.

CONGRESS OF APPLIED CHEMISTRY

THE Seventh International Congress of Applied Chemistry will meet in London, from May 27 to June 2, 1909. This is the first time in the history of the Congress that it has ever convened in an English-speaking country. It is to be held under the patronage of His Majesty, the King, and vice-patronage of His Royal Highness, the Prince of Wales. The President of Honor is Sir Henry Roscoe, and the Active President, Sir William Ramsay. Mr. Wm. McNab is General Secretary, and Messrs. Thos. Tyrer and C. Wightman are Treasurers. Dr. Harvey W. Wiley, of Washington, D. C., has been appointed chairman of the American Committee.

The Congress is divided into eleven sections, Section 9 being Photographic Chemistry. The English president is Sir W. de W. Abney, and the chairman of the American section is L. H. Baekeland, Yonkers, N. Y.

American contributors are invited to send papers on the subject of personal research-work in photographic chemistry, or any new contribution relative to the history of the development of the photo-chemical industry of the United States. The manuscripts can be addressed directly to L. H. Baekeland, Yonkers, N. Y.; and in case the author does not desire to read the paper himself, Dr. Baekeland will be pleased to read it as his representative.

The papers eligible for printing before the Congress must be received not later than two months before the date of the meeting, and the authors of such papers are requested to supply a short abstract of the paper with the original manuscript.

CAMERA CLUB OF NEW YORK

Two of the delightful entertainments enjoyed by the club and its friends during February were furnished by Mr. H. Snowden Ward, of London, England, and Mr. E. S. Curtis, of Seattle, Wash. Mr. Ward delivered his famous illustrated lecture "Canterbury Pilgrimages," already referred to in these pages, which attracted a large and fashionable audience. Mr. Curtis described his great work in preserving by means of the camera the physical and pictorial aspects of the American Indian, also filling the hall to its utmost capacity. The print-exhibition consisted of the prize and other successful pictures of the Sixth Annual Contest of PHOTO-ERA — over two hundred in number — February 15 to March 13.

Forget the past. Live in the present. Trust the future.

PHOTOGRAPHY IN SWITZERLAND

THERE is probably no more attractive field for pictorial photography in the world than Switzerland. A large number of workers, including many professionals, have signified their intention to include Switzerland in their itinerary this summer, either on the way to or from the Dresden Exposition. The editor has photographed considerably in Europe, and described one of his photographic tours on the continent in a series of illustrated articles in PHOTO-ERA from January to October, 1906, including many items of practical interest to the camerist. Any of our readers intending to visit Switzerland this summer, whether in connection with or independent of the Dresden Exposition, may have a copy of each of the May and June issues of that year at 15 cents each, post-paid, until the supply of these back numbers is exhausted. These cover the most picturesque portions of Switzerland, and include numerous illustrations from original photographs by the editor. The July issue of that year is devoted to the Italian Lakes (Lugano, Maggiore and Como), although portions of the first two belong to Switzerland. There are many persons who regard Swiss scenery as the most beautiful on earth, and do not fail to enjoy it, year after year. Switzerland certainly will be a favorite resort of photographers this season.

NUREMBERG

The Craftsman for February, exceptionally attractive to art-lovers, contains a well-written and illustrated article on Nuremberg, the picturesque and historically-interesting city of Germany. Visitors to the Dresden Photographic Exposition, this summer, will doubtless assemble in swarms in the old city of Nuremberg, ready to snap-shot its hundreds of interesting objects, in which event they will find the above-mentioned article of great assistance.

P. A. OF W.

A MEETING of the Executive Board of the Photographers' Association of Wisconsin was held at Appleton, Jan. 4, 1909, for the purpose of arranging and planning for the Appleton Convention, to be held July 6, 7, 8 and 9. This is the first time this association has ever been held outside of Milwaukee in thirteen years, and the officers are planning some new features, instructive as well as entertaining.

THE INDIANA ASSOCIATION

THE members of the Indiana Association of Photographers will hold their next yearly convention at the home of the Daguerre Memorial Institute, at Winona Lake, Ind., July 5, 6, 7, 8 and 9, 1909. The Executive Committee declares that this year's convention shall be conducted on a plan different from previous conventions, and has prepared an interesting and instructive program, including the services of Mr. W. S. Lively, president of the Southern School of Photography, McMinnville, Tenn.

VISITING PARIS

CAMERISTS planning to visit the French metropolis this summer may be interested to know of a first-class *pension*, which is a refined form of an American boarding-house, but without any of its disagreeable features. Style, fees, etc., of the hotel service are here absent. The publisher, therefore, takes pleasure in recommending the pension of Mme. Louise Mueller, 10 rue Châteaubriand, Champs-Élysées, Paris. The price, *tout compris*, is ten francs (nearly \$2.00) per day. Full information will be gladly furnished by Professor C. P. Lebon, care of English High School, Boston, U. S. A.

PORTLAND CAMERA CLUB

THIS enterprising organization adopted a new custom during the past winter, which, in our opinion, would be beneficial to almost any camera club needing new members and young blood. For several months there have been weekly demonstrations by the best workers of the club, intended to cover in a comprehensive yet simple way the whole subject of ordinary photography, from exposing and developing the plate or film to the making of the finished print. To these lectures and demonstrations were invited all men or women, whether members of the club or not, who were interested in pictorial photography. Not only were these instructive talks of great benefit to the outsider, but they served to stimulate his ambition to do better work, to make him acquainted with the club and its members and to realize the benefits of being a member.

We feel sure that this action on the part of the Portland Camera Club will be of benefit, and that it points the way to other clubs in which interest is on the decline. Where such a condition exists it is usually because nothing of real benefit is provided for its members. No camera club worthy of the name can long exist which does not have weekly meetings; and the more informal they are the better. Informality is conducive to a better acquaintance among members, good fellowship and a club spirit. Print-criticism evenings, when each member brings one of his most recent prints for friendly discussion, are of the utmost benefit. This broadens the views of each worker, gives him the average of the club's opinion of his results and helps him to improve them. Better still, it reduces the amount of solitary picture-making, and finally tends to give the work of each member a club individuality as well as his own. Several clubs might be mentioned as examples of this, and in each case it is noticeable that the club spirit is very keen, the club work as a whole far above the ordinary and the name of the club itself a synonym for pictorial photography of a certain characteristic style. All this, however, has to do with coöperation among the members themselves. Our present suggestion is that more camera clubs do something for the benefit of outsiders. It is sure to result in increased membership and more enthusiasm among those already within the fold.

POSTAL PHOTOGRAPHIC CLUB

THIS admirable body of workers — the pioneer of American portfolio societies — has begun the new year very propitiously. Its membership includes some of the most eminent of American pictorialists, and the amount of combined pleasure, instruction and fraternal feeling it offers is gratifying to contemplate. The officers for 1909 are as follows: president, Charles E. Fairman; secretary and treasurer, G. A. Brandt, both of Washington, D. C.

P. A. OF N. E.

THE Executive Committee of the P. A. of N. E. held its final meeting of the year Dec. 21, 1908, President F. A. Place in the chair and the full board of officers present.

The books of the secretary and treasurer were audited and found correct. They show a paid membership of 443 for 1908, with a net profit of \$471.40, making a fund of \$2,290.33 in the treasury — certainly a creditable showing.

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: F. M. TUCKERMAN, 1106 Railway Exchange, Chicago, Ill.

Vice-President: R. E. WEEKS, 166 Lake Street, Chicago, Ill.

Secretary: CLARENCE B. HALE, 215 Jackson Boulevard, Chicago, Ill.

Treasurer: GEORGE C. ELMBERGER, 305 Lee Avenue, Chicago, Ill.

Historian: WM. A. RHEINHEIMER, 1222 Clara Avenue, St. Louis, Mo.

THE Fifth American Photographic Salon was exhibited in the Galleries of the Carnegie Institute in Pittsburgh, January 1 to 15, under the auspices of the Pen, Pencil and Camera Club of that city. The exhibit attracted much favorable attention, the attendance being large and the local newspapers devoting much space to reproductions of the pictures.

From there the Salon was sent to Toledo, where it was exhibited in the Galleries of the Toledo Museum of Art, February 16 to March 4, under the auspices of the Toledo Camera Club.

It was next shown by the Missouri Camera Club in the gallery of the St. Louis Artists' Guild, March 15 to 19 inclusive.

From St. Louis it went to Racine, Wis., where it was exhibited March 25 to 30 by the Pictorial Workers, a club which has just taken membership in the Federation.

It will next appear in the Art Institute of Chicago, under the auspices of the Chicago Camera Club, April 6 to May 2, going thence to Indianapolis for exhibition the balance of May in the Art Institute there.

Efforts are being made to arrange to send the Salon to the Pacific coast for exhibition by several of the flourishing clubs there, during the summer months.

The Buffalo Camera Club has joined the ranks of the Federation, coming in for this year as a Sustaining Club Member.

CHICAGO CAMERA CLUB

THE Chicago Camera Club has been offering its members an exceptionally fine program this year, the January meetings being devoted to a demonstration of combination printing by Geo. C. Elmberger, an exhibit of lantern-slides made by the Wisconsin Camera Club, and a demonstration of the making of enlarged negatives by Mr. Elmberger.

The February dates were filled by Mr. O'Neill, staff photographer of *The Tribune*, who gave a very enjoyable talk on "The New Orleans Mardi Gras," illustrated by a set of slides which combined considerable art with the "snap" and interest necessary in newspaper work; by Mr. Schrempf, who showed his methods of retouching prints, accompanying his demonstration with a running fire of comment on art and entertaining reminiscences; by Mr. Doubleday, Western Manager of Doubleday, Page & Co., who talked on photography as applied to modern magazine-making, illustrating his remarks with a large number of colored plates and large-sized autochromes; by Eugene R. Hutchinson, on "What Photography Means to Me," illustrated by a very fine collection of his portrait-work.

The exhibits on the walls during this time have included collections from the Photo-Pictorialists of Buffalo, the Portland (Me.) Camera Club, Boston Camera Club and Orange Camera Club — all members of the Camera Club Print Interchange — as well as exhibits by the home club, including prints returned from Turin, Italy.

TOLEDO CAMERA CLUB

At the February meeting of the Toledo, O., Camera Club the officers of the past year were re-elected. The Fifth Annual Salon of the club was held together with the Fifth American Salon, and both met with success. In the awarding of prizes, J. F. Jones received the Woolson Loving-Cup for the best print and also received a pair of condensing-lenses for the best collection. C. C. Taylor received a 5 x 7 developing-tank for the second best print, and M. W. Chapin took third prize. There were ten honorable mentions distributed between the three names above and Messrs. Heimerdinger, Beatty, Lempert, Miller and Brownson.

The Fifth Salon is being viewed by large crowds each day, and is creating much favorable comment both from the press and public. It is far ahead of last year in point of merit. It is particularly free from the gaudy, the freak and the sensational, and it is built on lines that tend to give such collections a permanency and standing that photography deserves. It goes to St. Louis in March.

BOOK REVIEWS

PHOTOGRAMS OF THE YEAR 1908. Profusely illustrated. Price, cloth, \$1.50; paper, \$1.00. Postage free. Dawbarn and Ward, London, Tennant and Ward, New York.

No more interesting review of the progress of pictorial photography comes to us than "Photograms of the Year," and the present edition is no exception. The illustrations are, as hitherto, well chosen, for the most part, although not of such great beauty as those published in the previous volume; the reproductions are of good quality as usual, but the presswork, unfortunately, does not seem to be equal to that of the 1907 issue.

Excellent reviews are provided of the two greater English exhibitions, as well as articles dealing with pictorial progress in Germany, Austria, Canada, South Africa, Australia and Spain. The American reader, however, will be disappointed to find that no section of the letterpress is devoted to photography in the United States. Can it be that this great country is artistically so unimportant? It is true that many prominent American camerists are represented pictorially, and reference to their work is made in the text; but this is done for the most part only in the case of American exhibitors who contributed to English exhibitions, and the result is that several of our most promising pictorialists are conspicuous by their absence. As describing the 1908 issue, the title "Photograms of the Year" seems to convey rather too all-inclusive an inference.

DEUTSCHER CAMERA-ALMANACH. A year-book of cotemporary photography. Fifth volume for the year 1908. Founded and edited by Fritz Löscher and completed by Otto Ewel. Price, paper, \$1.25; cloth, \$1.75. Imported and sold in this country by American Photography, 6 Beacon St., Boston, Mass.

We welcome this interesting German annual more heartily than ever, but with a tinge of regret because of the death of its founder, Fritz Löscher, last August. The book endeavors to represent the pictorial activity of the year just past, but is devoted primarily to the artistic progress in Germany, as is evidenced by the number of illustrations, all of which are of a high technical character. Conspicuous in this respect is the portrait of J. C. S. Mummery, president of the Royal Photographic Society, by Furley Lewis, London. The volume contains three plates, fifty-four full-page prints and over one hundred pictures distributed throughout the text; also about twenty-five well-written articles on various photographic topics, including an essay on color-photography by Hübl, "Interpretation of Alpine Scenery," by Dr. Kohfahl, "The Sky in the Landscape," "The Oil-Color Pigment-Process," by Demachy. There is, also, an index of amateur photographic societies in the German Empire. The volume appeals to every intelligent worker, but more especially to our German readers.

PARIS, THE BEAUTIFUL, by Lilian Whiting. 26 illustrations in half-tone. Crown 8vo. Cloth, gilt top, in box. Price, \$2.00 net. Little, Brown & Co., Boston.

The author, a gifted newspaper-correspondent and magazine-writer of high reputation, has passed much of her life abroad in search of literary material, and is esteemed as a profound student and accurate observer. This is apparent in her volume on Paris, in which city the reviewer met her several years ago — ardently admiring the genius of Rodin and others of the advanced French school of art. Possessed of deep appreciation of the achievements of French art and science, Miss Whiting has recorded, with scintillating eloquence, her individual impressions of progress in art, science and literature as exemplified in the great museums and institutions of Paris. Like most writers, however, Miss Whiting is obscure when she attempts to explain the origin and character of color-photography. This lack of perspicuity, however, will not be apparent in the next revised edition now being prepared.

Her style is clear, succinct and direct, in spite of her glowing enthusiasm for the beauties of the French capital, as the following extract will show: "The very atmosphere of Paris is fascination that inspires perpetual record in pictorial or literary expression. To stand again in La Sainte Chapelle, in the incomparable light of the great rose-window, with a new realization of the strange and superstitious mysticism of Louis XI; to linger in the Panthéon and recall the wonderful story of Geneviève, the patron-saint of Paris, whose marvelous history is depicted on the walls by the master-hand of Puvis de Chavannes in his series of decorative paintings; to loiter in the gardens of the Tuileries, where statues gleam whitely amidst the glow of scarlet geraniums in the great vases, and the vista down the broad avenue of the Champs-Élysées is framed in the stately Arc de Triomphe de l'Etoile; to renew acquaintance with cotemporary French art through the two salons in the splendid galleries of the Grand Palais — in all these experiences one invites the joy of beauty."

Although not a guide-book, in the ordinary sense, Miss Whiting's latest work forms a delightful preparation for the enjoyment of the incomparable attractions of the most beautiful city on earth.

A NEW AND SIMPLE METHOD OF LIGHTING IN PHOTOGRAPHY BY DAYLIGHT AND ARTIFICIAL LIGHT. A brochure by C. Klary, Paris, France. Price, English edition, post-paid, \$1.60.

This work, in pamphlet form (6 x 9 inches) and brief, is unquestionably a valuable and practical treatise on the subject of portrait-lighting with which every practitioner should be familiar. The method is clearly explained, aided by a goodly number of beautifully-executed illustrations of portraits and diagrams.

A MOTOR-FLIGHT THROUGH FRANCE, by Edith Wharton. Profusely illustrated. Cloth, \$2.00 net. Charles Scribner's Sons, New York.

To the tourist fond of motoring this admirable volume must make an irresistible appeal. The author is complete mistress of her subject and brilliantly equipped for the task undertaken. She has produced a work which for profound appreciation of subject-matter, accuracy and perspicuity of critical analysis and charm and beauty of style, deserves to be ranked with similar works by Gautier and De Amicis. The joys and advantages of traveling in a motor-car as experienced on this thoroughly delightful tour through *la belle France* are mentioned but sparingly, yet will cause the blood of every automobilist to tingle with pleasure and inspire him to emulate the author's example.

The illustrations, largely architectural subjects, are printed in half-tone and, what is most unusual in travel-books, are from excellent, high-class photographic prints and superbly reproduced.

THROUGH THE GATES OF THE NETHERLANDS, by Mary E. Waller. Copious illustrations from old pictures and prints. \$1.50 net. Little, Brown & Co., Boston.

A descriptive narrative of a loving couple full of youthful ardor and an irrepressible longing to do Holland in their own way. To this end they keep house, for several months, in a furnished villa at Scheveningen, whence they make several delightful excursions into the heart of Holland by means of a Dutch river-boat hired for the purpose. They manage to see much that is not visible to the ordinary tourist — the life of the people, quaint scenes and rare sights. Now and then the faithful craft is exchanged for a train, and thus the big cities are also visited, with their great picture-galleries, churches and palaces. The author has delved much in picture-lore and has decided (favorable) opinions of Dutch art, which are well worth the reading. The volume is intensely interesting from start to finish, and forms an excellent preparation for a visit, however brief, to the "brave little land."

THE ART OF THE NETHERLANDS GALLERIES, by David C. Preyer. Large 12mo. Profusely illustrated with full-page plates in duogravure. Price, \$2.00 net. L. C. Page & Co., Boston.

This is a complete history of Dutch art from its earliest inception to the youngest men of the present day, the first that has appeared in English. It is a task nobly achieved. The main divisions are the art-galleries of Holland; Before Rembrandt; Rembrandt; His Contemporaries; the Portrait and Figure Painters; The Genre, Landscape, Animal, Still-Life and Marine Painters; The XIX and XX Centuries' Dutch Painters; Walks through the Galleries of Amsterdam, The Hague, Haarlem, Leyden, Utrecht and Rotterdam. The author, with commendable wisdom, has described the art of the Netherlands along the historical line, and spoken separately

of the men who created this art, and always with impeccable accuracy — a feature which will be at once appreciated. Lack of space forbids reference to other admirable traits of the book, except to state that, once perused, it will be treasured as an invaluable reference-book on Dutch art by the art-student, the picture-lover, the collector and the connoisseur. It should be the *vade mecum* of every visitor to Holland this summer.

A NEW CLUB

A NEW camera club has been organized at Peterboro, Ont., Canada; and, considering the short time it has been in existence, it has got to work in earnest. Already demonstrations in the "Art of Negative Making," "Analytical Composition of Sodium Salts," "Printing and Developing of Velox Papers," "Obtaining Sepia Tones on Sepia Papers" have been given. Papers have been read on "The Dark-room" and "Photography, an Aid to Surveyors and Surveying." The program for the balance of the winter includes "Pyro Developing," "Rytol Developing," "Tank Developing" and "Lantern-Slide Making." All are practical demonstrations. Other features are also expected. An exhibition is being arranged for some time in April. Other features are promised which will add to its already instructive and interesting program. The officers are: honorary president, His Worship Mayor Rush; president, Dr. J. A. Moyan; first vice-president, Mr. R. S. Rose; second vice-president, Mrs. A. McCarthy; secretary-treasurer, Mr. N. A. Howard-Moore (191 King St., Peterboro); Committee, A. W. Patterson, A. Rogers, J. A. Brightman, R. Picor, J. A. Deslish and James English.

STRAUSS AND STEIN VISIT THE HUB

FEELING the need of a little diversion of the right kind, Julius C. Strauss, the brilliant portraitist of St. Louis, and his brother artist Simon L. Stein, of Milwaukee, journeyed to Boston, where they were the guests of John H. Garo and H. H. Pierce. The hosts, both artists of the first rank, assisted by a number of local brother artists, did their utmost to entertain their eminent guests, and are said to have succeeded most brilliantly. In his letter to Mr. Garo, written soon after his return to St. Louis, Mr. Strauss expressed his appreciation of the hospitality shown him on his visit to the Hub, concluding that he had had the best time of his life.

FOR ONLY A POSTAL

To any *professional* photographer, whether residing in the United States, its colonies or Canada, we will send, upon request by postal or otherwise, a post-paid sample of something useful in his business. Please address Advertising-Department, PHOTO-ERA, 383 Boylston St., Boston, Mass.

Too many follow the rule of gold under the impression they are following the Golden Rule.

WITH THE TRADE

THE PHOTO-ERA TOUR THROUGH EUROPE

MANY of our readers will remember the PHOTO-ERA Tour described and illustrated in this magazine March to October, 1906. The trip appears to have made a deep impression upon many of our friends, and, at their suggestion, an attractive itinerary has been arranged for a party of camerists and their friends, for this summer, in connection with their visit to the Dresden International Photographic Exposition.

The object of the tour is to give the camerist an opportunity to photograph the rarest gems of beauty in the old world.

The party sails June 21 from New York, and will visit Rotterdam, The Hague, Haarlem, Amsterdam, Cologne, Coblenz, The Rhine, Mayence, Heidelberg, Frankfurt, DRESDEN, Nuremberg, Rothenburg, Munich, Innsbruck, Venice, Milan, Como, Bellaggio, Lugano, Palanza, Flüelen, Lucerne, Brienz, Interlaken, Thun, Berne, Basel, Paris and Boulogne, with extension to England.

The trip has the endorsement of the editor, who may join the tour. All persons interested should lose no time in communicating with the Boston Travel Society, 420 Boylston St., Boston, as the party is a select one and positively limited in number.

THE STEINHEIL LENSES

THE attention of every professional portraitist is invited to Steinheil & Sons' new and remarkable Unifocal lens — working-aperture F 4.5 — having great covering-power, brilliant illumination and superb definition. Steinheil's well-known Othostigmat lenses fit all Kodaks and hand-cameras, and are great favorites. Steinheil & Sons, of Munich, Germany, is one of the oldest optical firms in existence, and famous for the perfection of its productions. It is fortunate in being represented in the United States by so capable, honorable and enterprising a firm as Herbert & Huesgen, 311 Madison Ave., New York City.

A STRONG TESTIMONIAL

THE Berlin Aniline Works is to be congratulated upon its ability to procure the endorsement, in favor of Agfa Pyro, of so eminent a photographer and expert technician as John H. Garo, of Boston, U. S. A. Every professional photographer is familiar with the conspicuous ability of this artist; besides, PHOTO-ERA has been extremely fortunate in being able to present to its readers, for many years past, representative specimens of his strong and attractive portraiture.

THE AMERICAN INDIAN

Now that we are brought face to face with the fact that the latest of the early settlers of American soil are rapidly dying out, the utmost interest is being evinced in their history, customs and physical aspect. One of the largest of the remaining native Indian tribes is the Navajo. It has enjoyed the attention of many a camerist, but by none more successfully than Frederick I. Monsen, who has depicted him with Kodak and pen in his delightful little sketch, "With a Kodak in the Land of the Navajo." Those who are interested may procure a copy for the mere asking on application to the Eastman Kodak Company, Rochester, N. Y.

THE 1909 SENECA CATALOG

THE spring song of the Seneca Camera Manufacturing Company for the current year extols the firm's novelties — Anastigmat lenses with Optimo, Koilos, Volute and Sector shutters fitted to new equipments; the resourceful Multiplying-Back fitted to their 8 x 10 view outfits (up to 48 pictures on a 5 x 7 plate); a non-fogging plate-holder, and a non-slipping printing-frame.

POPULAR REFERENCE-BOOKS

THE complete Self-Instructing Library of Practical Photography seems to have justified its existence and proved that it filled an important need. The first edition is nearly exhausted, and it is feared that every available set will have been sold before the second edition is ready. Of the eight volumes comprising the set, five have been delivered and the others are now being prepared. This delay has been occasioned by the necessity of condemning and reprinting the entire edition of Volume VI after it had been delivered by the printer, because the quality of mechanical workmanship was not up to specifications. Although an unfortunate circumstance, it gave the publishers an opportunity to show their determination to keep faith with subscribers. A second edition of not less than ten thousand sets will be begun upon very soon, and every volume will be thoroughly revised, so that not one error, typographical or otherwise, will be present.

THE LATEST

GEORGE C. ELMBERGER, the noted pictorialist whose work has adorned the pages of PHOTO-ERA for several years past, is a clever and resourceful technician. He has been persuaded to place the results of his skill on the market, and workers desiring high-grade photo-specialties should inquire for those made by George C. Elmberger & Co., Jefferson Park, Chicago, U. S. A.

PHOTO-ERA

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

Vol. XXII

MAY, 1909

No. 5

PUBLISHED MONTHLY BY WILFRED A. FRENCH, 383 BOYLSTON STREET, BOSTON, U. S. A.
Entered as Second-Class Matter, June 30, 1908, at the Post-Office, Boston, under the act of March 3, 1879

YEARLY SUBSCRIPTION-RATES

United States and Mexico, \$1.50. Canadian postage, 35 | Foreign, \$2.25. Single copies, 20 cents each. *Always*
cents extra. Single copies, 15 cents each *payable in advance*

ADVERTISING-RATES ON APPLICATION

WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return postage is enclosed.

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MRS. NANCY FORD CONES
KITTY'S BREAKFAST



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Bromide Printing in Two Colors

H. D'ARCY POWER, M.D.

THE definite advent of photography into the realm of art, and its claim to rank as an adequate medium of individual expression with power to evoke emotion or sensuous pleasure, is ultimately dependent on the operator's power to control the result. Hitherto this has been possible only with the pigment processes, and hence bromide and gaslight papers have received little attention from the best-known workers. This feeling dominated my own efforts in the past, but during the last three years various causes have compelled me to make greater use of bromide paper, and therewith came the desire to have some of the freedom I possessed as a worker in gum. This led me to the experiments that ended in the use of the means of chemically modifying those prints described in *The American Annual of Photography* for this year, and since reproduced in *Photography and Focus* and in *The Amateur Photographer and Photographic News* of London. Working further along these lines has brought me to the conclusion that another and somewhat different source of æsthetic power has been too much neglected by us; namely, color-contrasts. Let me try to explain exactly what I mean. Pictorial effect is dependent on the relation of contrasts, and these are of three kinds — line, tone and color. Lines placed in certain relations are pleasing or otherwise, masses of varying light and shade by contrast are harmonious, striking, or flat and uninteresting. The artist in monochrome (who may be a photographer) is constrained to produce his effects entirely by these two; and when, as is often the case, he has to transcribe a scene in which the beauty is formed by color-contrasts, his only resource is to falsify the values and suggest color-difference by light and shade. He therefore classifies colors into warm and cold, raising the true values to represent the first, and lowering them for the second. But it must not be forgotten that it is a device based on the destruction of the true relations of light and shade, and it fails as often as it succeeds. Color-contrasts are elements of composition as much as line or tone-contrasts, and where either or both of the latter are lacking in pictorial interest a color-contrast may save the situation, and make a beautiful picture. It will be noted that I have spoken solely of color-

contrasts; there are also color-symphonies, and the highest flights of the colorist's imagination and skill have been exercised in their production. But these are at the present time entirely beyond the range of photographic technique, and, so far as I can ascertain, no attempt at photographic painting, if I may use the term, either by multiple gum or in oil, has been worthy of serious consideration. I have kept to the subject of color-contrasts for another reason; namely, that it is fundamental to composition, whereas polychromy is not. For example, take the case of a soft sunset sky, the beauty of which is dependent on bands of color of almost equal light-values. The black-and-white artist can make nothing of it; the painter can of course put it on canvas with a full palette, with results proportionate to his skill; but (and this is the point) if he have only two pigments, a warm tint, such as Indian red, and cool gray, such as Payne's, and he therewith make a water-color sketch, he can obtain a result far and away more beautiful than the photographer, and not so far removed from the effects of painting in full color. Why? Because he has preserved his color-contrasts without sacrificing his values.

The photographer has long possessed the power of making prints in two colors, but it is an asset of which he has made little use. It is true that some notable gum-printing has been of this order, and recently it has been introduced into oil-printing; but the mass of serious workers have left it entirely alone. There have been beautiful and artistic examples of two-color printing that should have set us thinking; but apart from the use of tinted bases, we have given the subject no consideration. There are, of course, reasons for this. The use of a second color demands considerable taste and judgment. The tints chosen must stand in harmonious relation to one another and to the subject-matter; they must be distributed so as to help and not mar the scheme of composition. These are problems not likely easily to be solved by the tyro in art. Secondly, the technique of multiple gum or oil-printing is a possession of the few.

I cannot suggest any short cut to an art-training, or color-sense, but I can offer an easier and more controllable technique than multiple gum. More than three years ago Mr. Winthrop Somerville published in *The Amateur Photographer*, London, a method of making bromides in two colors. He seemingly looked on it solely as an interesting experiment, and made no reference to its art possibilities. I republished his paper, and the following year I took the matter up, following Somerville's technique. I did not like the tints — (brown sulphide of silver on the ordinary bromide image), and discarded it in favor of a totally different method, whereby I produced a combination of sepia platinum and pure, deep black. In March, 1907, a formula was published whereby the somewhat raw tint of a sulphuretted bromide could be changed through many tints to red chalk or crimson. This threw me back on further experimenting with the Somerville method, and thus modified I am able to produce with it prints in bromide or gaslight paper in beautifully contrasting tints of blue-black and warm brown, running, if desired, to dark blue and Indian red. I am in-

formed that Dr. Bruguière of this city has recently been doing work along these lines, but I am not acquainted with his technique. Finally, I have taken up the problem of producing prints in two-colored Ozobrome, and can now offer a method whereby a print may be produced in any two or more of the colors in which Ozobrome or carbon tissue is sold. It is impossible to convey by description the full value of the results so obtainable; but I feel assured that the walls of our exhibitions will ere long afford ocular demonstration of the beautiful effects to be realized by the competent.

Let me now briefly describe the methods which I have personally found available. There are three separate procedures of which I can thus speak. They are:

First. The part to receive the second tint is bleached by the local application of a solution of potassium ferricyanide and potassium bromide, and redeveloped by a solution of sodium sulphide. This is the original method of Winthrop Somerville. It gives brown and black tones which can be modified as will be described later.

Second. The whole print is toned to a good sepia with mercury and platinum chloride, and then the selected areas are locally toned to a rich black by means of a brush charged with amidol developer.

The process is of my own devising and has not been previously described.

Third. The selected area is bleached as in the first method, the print is well washed and converted into a non-transfer Ozobrome. Owing to the absence of metallic silver in the bleached area, there will be no pigmented gelatine thrown down at these points. The Ozobrome is washed and dried, and the bleached area redeveloped with a brush charged with amidol developer; again washed and brought into contact with a piece of Ozobrome or carbon tissue of the desired second tint. Development is carried out as before. The second deposit of pigmented gelatine will occur solely over the redeveloped area, thus giving a print in any two desired colors. The technique is not difficult in practice.

I am experimenting with other methods, but am not prepared to advocate their use until I have further experience of their permanence.

In all the above methods the most difficult essential procedure is the local bleaching or redevelopment of the areas chosen for the second color. The following excerpt from my paper on the chemical control of bromide prints, in this year's *American Annual of Photography*, is entirely applicable, except that the hypo fixing is not used.

THE METHOD OF WORKING

Now for the exact details of working. Prepare: a sheet of wet blotting-paper on a board; two or three camel's-hair brushes, one large, one small; one or two tufts of absorbent cotton; a little developer in a cup (any kind but pyro); a solution of ten grains of potassium ferricyanide and twenty grains of potassium bromide in one ounce of water.

The print to be modified is soaked in water, placed on the damp blotting-paper, and surface dried with another blotter. A little of the bleaching-fluid is



A. F. FRANCE
UNCLE REMUS





J. H. FIELD "THERE IS COMFORT JUST OVER THE HILL"

put in a saucer and diluted several times with water; a brush is charged with the mixture and carefully applied to the surface to be lightened or removed. If the surface to be modified is a large one, it is better to use the reducer weak and rapidly with a swab of absorbent cotton. On the other hand, if high-lights are to be added or small dark objects entirely removed, then use the reducer full strength with a brush that is small and almost dry. Thus applied there will be no spreading. If by the use of the reducer the desired effect has been obtained, then all that is necessary is to rinse the print in water.

CORRECTION AND RECORRECTION

But it may happen that the action has gone too far, or that for some purpose a deposit of silver is required in a cleared area. To obtain these the print is rinsed free of reducer, and a weak amidol or other developer carefully applied to the parts that are to be restored. In this local redevelopment it is particularly necessary to work with a brush almost dry and allow a little time for the solution

to act. If the action is proceeding too far it can be instantly stopped by applying a swab of absorbent cotton moistened with a little weak acid. An error in re-development can, of course, be corrected by fresh reduction. It is this complete control which constitutes both the novelty and the strength of the process.

NOTES ON EACH PROCESS

The First

This is the easiest, cheapest and for many purposes the best method. The locally-bleached print is washed, and immersed for three minutes in a 1% solution of sodium sulphide (both for bleaching and sulphuretting, the outfit sold by the Eastman Kodak Company will do), then washed until all traces of odor are removed. We now have a print in brown and black. For some subjects the result is all that could be desired, but in the majority of cases I find that the tints are greatly improved by immersing the print in a bath of:

Gold chloride	1 grain
Ammonium sulphocyanide	10 grains
Water	10 ounces

In this the brown changes through many tints to red; the black, to dark blue. There is a beautiful relation in these opposing tints at every stage, and the operator can stop the process at any desired point by removal from the bath and washing. The method is of great value in portraiture, for the gold toning of the sulphide gives perfect flesh-tints. The toning-solution can be applied by means of a brush, and so a third tint readily produced. I do not favor multiple tints, but in portraiture the modification of the brown on the flesh when it is left unchanged on hair and draperies is often very effective.

Second Process

The whole print is immersed in a bath consisting of:

Potassium chloroplatinite	1 grain
Mercuric chloride	1 "
Citric acid	9 grains
Water	1 ounce

In this it changes in about fifteen minutes to a fine sepia. Wash and locally treat the chosen parts with an amidol or dianol developer. Wherever this is applied the sepia changes at once to a fine and very dense black. Both the brown and the black are quite unlike those given by the first method, and have a distinct field of utility. After washing they are quite permanent. I have examples which have hung in the light for over two years.

Space limitations demand that I close at this point, though the subject is by no means exhausted. On another occasion I hope to deal with the pictorial considerations controlling the choice and distribution of the colors.

NOTE.—Accompanying Dr. Power's article were several specimens of his work in all three processes described. These were pleasing in color and ton-quality, and indicate great possibilities for these methods of treatment in the hands of an able worker.—EDITORS.

On the Comparative Merits of Different Developers

MALCOLM DEAN MILLER, A.B., M.D.

III. Developers for Paper

PAPER developers, as distinguished from general agents, fall into a class by themselves. In this group are included only such reducers as will work with practical freedom from staining. Pyro, for instance, is not to be considered, so that a worker who desires to use only one developer for both plates and papers must perforce choose one of the more modern agents. Many of these have been used and recommended for the gaslight and the bromide papers, but the field narrows down in practice to three or four.

Almost without exception the manufacturers of the popular developing-papers urge the use of metol-hydro. There is no question that the combination of these two reducers is a good all-round developer. The formulæ have been well worked out, and carefully adjusted by the paper-makers to their own brands, so that almost any one can get good results by following directions intelligently. This holds not only when the amateur buys the cartridges sold by the paper-manufacturers, but also when he mixes his own solutions. In the latter case, however, owing to the immensely greater economy of the developer, it pays to be extravagant in securing only the purest chemicals. Hydroquinone, for instance, can be purchased for from eighteen to twenty-five cents an ounce; but the lower-priced samples are always inferior in purity, and likely to cost the user a great deal in spoiled prints. An impure hydroquinone, which might do very well alone, will often ruin the developer compounded with the more delicate metol, particularly if used with anything but distilled water. In the same manner, we find that the highest-priced sulphite and carbonate of soda save us money over the ordinary grades. At list prices, Hauff's metol and hydroquinone and Cramer's C. P. dry sodas will yield the popular M. Q. at about one cent for four ounces of the concentrated solution. The dry sodas are not only more convenient than the crystals, but they are definite in strength and are really the only ones worth considering in connection with paper developers.

Given chemically pure materials, then, the photographer should find the various formulæ for metol and hydroquinone fairly satisfactory. There are, nevertheless, certain disadvantages which have made me give them up in favor of another agent. These are: First, the great difficulty in getting a uniformly good color of the reduced silver. The least excess of bromide gives, with most papers, disagreeable greenish or brownish blacks instead of pure black, warm black or blue-black, which are the desirable colors. Furthermore, the color of the deposit often varies as between the first and the last prints of the same batch as the developer becomes loaded with bromide of soda from the paper. Secondly, the mixed developer has not good keeping-qualities unless very carefully pro-

tected from the air. This often leads to yellow stains. Thirdly, the developer has not enough latitude. It is necessary to time prints exactly, and to avoid forcing under-timed paper, which always results in staining, whereas over-timing invariably injures the color of the deposit. Fourthly, a developer adjusted in strength of bromide to give a good black is often incapable of rendering the whites clearly. Lastly, old paper seldom yields satisfactory prints.

Edinol, in contrast to metol and hydroquinone, is entirely free from all these defects. The color of the deposit is a good, clear blue-black to pure black, according to the percentage of Edinol present. This is true even when the same quantity of developer is used for half a dozen different makes of paper. The mixed developer keeps well in partly filled bottles, and is capable of developing without stain even when oxidized to a very deep reddish-brown. Under-timed prints may safely be forced, even in old developer, and over-timing has little influence on the color. A slight trace of bromide only, owing to the natural tendency of Edinol to work clearly, is all that is needed. On the other hand, I have repeatedly demonstrated that as much as two fluid ounces of ten per cent solution of bromide of potassium may be added to twelve ounces of developer, and when the required exposure is found the deposit will be of just as good a color as is given by the normal solution. On this account, even the oldest left-over lots of paper will make clean prints.

The formula I use is a recalculation of one of the earliest-published recipes for a general developer, and was given in the second paper of this series. For paper I take one ounce of A, two ounces of B and three ounces of water, adding four or five drops of ten per cent potassium bromide, and filtering. This mixture gives a splendid clear bluish-black, but by increasing the A solution to one-and-one-half or two ounces it is possible to get an extremely strong, clean black without a trace of blue. As for the greenish and brownish colors, I have been unable to obtain them, even from over-timed prints. Another peculiarity of this solution is the fact that it does not have to be varied for carbon, portrait or special portrait grades of paper, because it brings out the peculiar qualities of each grade just as it stands. Probably the greatest advantage of the solution is its latitude. The prints develop slowly and steadily, even when over-timed, so that it is easy to stop development at exactly the right point.

The after-treatment of the developed print is important. I think it is good practice with all makes of paper to transfer the print immediately to an acetic acid bath, in which it is well rinsed before it is put into the fixing-bath. This is the surest preventive of stain. The strength of acid is unimportant, but may conveniently be an ounce or two of No. 8 (25%) acetic acid to a quart of water.

The fixing-bath is the same for all papers. In mixing it, however, there are certain precautions to be observed. First, get a good, pure hypo. This salt is so cheap that it is absurd to save a cent or two a pound at the expense of poor results. If money is an object, save it by buying hypo in ten-pound lots and try the lower-priced papers, such as Argo and Cyko. These give perfect results with pure chemicals; and with Edinol, in my opinion, they are superior to the



GEORGE H. SCHEER, M.D.

THE LONG NIGHT IS NEAR

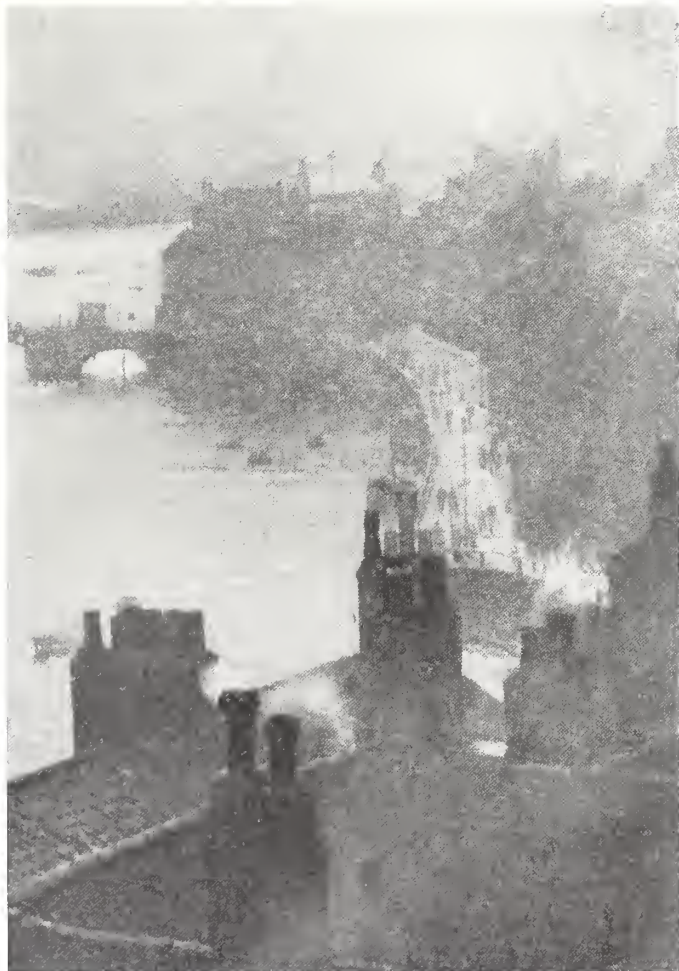


H. R. GEBHARDT

SPERRY LIGHT

higher-priced makes used with metol-hydroquinone. The next precaution is to filter the plain hypo before adding the hardener. In making up this last solution do not be deceived by the statement that it may be made up as a stock solution. The office of the sodium sulphite in the hardener is to prevent the acetic acid from decomposing the hypo and throwing down a precipitate of finely-divided sulphur. Now, sulphite in solution is rapidly oxidized to sulphate, which has not the property of preventing this decomposition. It is always better to mix from the dry salts just sufficient hardener for one batch of hypo. Many get into trouble by not using the right strength of acetic acid. If the 25% acid is not available it is easy to mix the bath with any other strength, as follows: take five ounces of water, and add two drams of anhydrous sulphite and four drams of powdered alum. Stir vigorously the white precipitate which forms, and add the acid until the precipitate just dissolves, avoiding an excess of acid. Add this hardener to the hypo solution slowly, stirring all the time, and filter once more. Precipitation of the bath is proof positive of sulphite containing sulphate, or of impure alum. Do not overwork the fixing-bath. Use a large volume of it, but discard as soon as it starts to precipitate or whenever litmus paper shows that it is not strongly acid. If, however, the prints are rinsed in acetic acid before entering the fixing-bath neutralization of the solution will not occur.

When the prints are in the fixing-bath it is important to keep them separated and fully immersed. One of the handiest wrinkles is to use a small filter-funnel to carry each print to the bottom of the tray, leaving the funnel on the print until the next one enters the fixer. This avoids contaminating the fingers



JAMES MC KISSACK

OLD WHITBY TOWN

with hypo. When developing large batches of prints it is well to put them in face up for ten minutes, at the end of which time all should be put face down, and the succeeding prints again put in face up for ten minutes. Now remove the first lot to a tray of clear water, and put the second lot face down.

Other precautions which are necessary for the best results are to have all the solutions at the same temperature and to wash prints thoroughly. The usual direction is to wash prints for at least one hour in running water. This is sufficient if the prints are kept well separated, but the "if" is a big one. When a suitable print-washer which will keep the prints separated automatically is not available it is necessary to pick over the entire batch at intervals of five or ten minutes if one wishes one's work to be permanent.

Another Edinol formula which I have found superior is made up with Acetonesulphite in place of sodium sulphite. It gives pure black tones, and, I think, slightly more brilliancy than the former developer. The print retains when dry a little more than usual of the fine, sparkling crispness which makes it so attractive when wet.

Edinol	30 grains
Acetonesulphite	150 "
Sodium carbonate (anhydrous)	226 "
Water to	8 ounces

Very little bromide, often none, is needed with this formula.

Inferior to Edinol in every respect except that at times, and especially with the true bromide papers, one may be able to get a more satisfactory black, is Amidol. The color is excellent when exposure is accurate, but the solution oxidizes very rapidly, stains the fingers, has very little latitude and is too sensitive to bromide. The tendency is towards disagreeable greenish tones; but when the formula is fitted exactly to the paper used, condition of the water, and other variable factors, this agent will often give a deposit closely resembling platinum. This is most marked on fast bromide emulsions, where the range of pearly grays in the half-tones is best brought out by Amidol. Usually it requires some experimenting to get the proportions just right, but by remembering that increase of Amidol increases the depth of the black and that increase of the sulphite increases the vigor of action, avoiding excess of bromide and using the solution quite fresh for a few prints only, it is possible to produce splendid results from some variation of the following:

Water	8 ounces
Sodium sulphite (anhydrous)	60 grains
Amidol	20 "
10% bromide of potassium	5 drops

In contrast to Edinol, this agent develops very rapidly, so that streaks of uneven density are sure to result if a part of the paper is not immersed as soon as the rest. To avoid this it is sometimes well to soak the paper until limp and then drain well before placing it in the developer. This has the advantage of giving more control.

A developer somewhat resembling Amidol in its range of tones is Rodinal. This is a very convenient developer, as it requires only dilution with water and addition of bromide to prepare the developing-solution. It is much more stable than Amidol, has less staining tendency, and gives nearly as good grays in the half-tones.

An interesting variation from the usual black-and-white print is sometimes obtained by developers which will give browns, reds and other tones by over-exposure. When I was investigating Adurol some time ago I chanced to hit on a simple solution which gave a fine coppery brown with only slight over-exposure.

It was about as follows:

Water	8 ounces
Adurol	60 grains
Argo soda	120 grains

The Argo soda seems to be responsible for this result, for I have noticed that it seems always to have a tendency to produce brown tones, though not so markedly with any other reducer than Adurol.

I might give notes on many other developers and combinations with which I have made extensive experiments, but the ones already treated cover the field pretty completely, and I have settled on them as standards in my own work.

CONCLUSIONS

In closing these papers, I think it would be well to sum up the advantages of certain formulæ. To the man who desires to stick to the old reliable pyro for plates I cannot too strongly recommend the use of this agent in very dilute form, as given in my second paper. But if tank development is the method chosen, Glycin is without question the best. For tray development I consider the Glycin-Metol the best all-round developer, particularly for the panchromatic plates.

Some photographers, however, prefer to use only one developer for both plates and paper. There are so many good reducers which work perfectly for both that it is a little hard to choose one as undoubtedly superior. Nevertheless, if I were to be restricted to one agent, I should name Edinol as my preference. It will do all that any reasonable man can ask with plates, and is, in my opinion, just a little superior to all the others for paper. For special effects I keep most of the developers I have reviewed on hand, but as time goes on I find myself using Edinol more and more constantly. Others may for certain personal reasons find some other reducers better suited to their needs. To such I freely accord the right to differ from me. Freedom of choice in photography, as in everything else, is the only principle which will conserve progress.



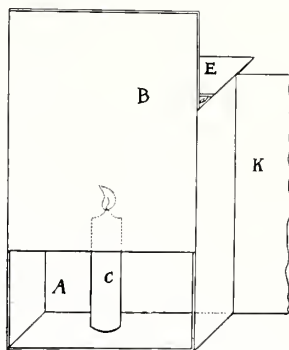
An Impromptu Safe-Light

A. E. SWOYER

OCCASIONALLY, through some accident to the regular ruby-lamp, or through the necessity of developing while out of reach of a properly-equipped dark-room, some makeshift means of illumination must be improvised. Such a temporary safe-light may be made from an empty cigar-box in about five minutes.

Remove the bottom (not the hinged cover) of the box, and nail it in the position shown at B. Remove one end, and replace as shown at E. Drive a short wire nail through the center of the opposite end to serve as a seat for the candle C.

The lamp is finished by tacking two or more layers of yellow post-office or heavy wrapping-paper over the aperture A, bringing the paper well around to the sides and bottom of the box to prevent light leakage from the cracks around the edges. The hinged cover K is used as a door, making lighting and trimming convenient; it may be fastened with a nail or a piece of wire. It is well to rein-



force the hinge by gluing on a strip of cloth if the lamp is to be in use more than once or twice. This lamp is safe, for the projecting edges of B and E form light-shields for the ventilation orifice *a* and the crack at the top of the hinged cover, respectively. Moreover, since the flame of the candle is above A, only reflected and transmitted light reaches the plate, while the danger of igniting the paper is reduced to a minimum.

A

Kidnapping Along the Blazed Trail

GEORGE SHERMAN

AS originally applied, "kidnapping" was an appellation for the trade of a scattered few vagabond photographers, who plied their vocation among credulous youngsters who chanced to wander outside the zone of mother's call to dinner. Lately, however, the term has become more tacitly understood. Nowadays both amateur and professional photographers working outside the precincts of a gallery are designated as "kidnappers." Whether you are in the habit of taking views, buildings, picnic-parties or youngsters for pleasure or pecuniary gain it will be difficult to escape the colloquialism. This is due chiefly to the fact that most amateur photographers prefer to part-pay the cost of materials by accepting an occasional cash order on an extended trip. This is business-like as well as stimulating to the interest manifested by the ambitious amateur, and surely the practice is entirely proper.

This very practice of "kidnapping" for an occasional *sou* or in part-payment of a "grub-stake" has enabled the writer to prolong a most interesting trip into



N. BROCK

MOUNTAIN MEADOWS SHEEP



H. L. BRADLEY

"CENTRAL 444, RING 2!"

the heart of the primitive forests of the Ozark Mountains. Most of this journey was made afoot through the territory comprised in the recent government forest reserve of 900,000 acres in Arkansas.

My outfit on the journey, which covered about three hundred miles, mostly over blazed trails, consisted of an 8 x 10 view-camera, with inside kits down to 4 x 5; a Brownie No. 2; plate-holders; rubber trays; chemicals; developing and printing-out papers. Besides this I carried a sleeping-bag, a couple of folding tin dishes and a very small supply of concentrated foods. In the heart of a jumble of steep ups-and-downs, forty-five miles from the nearest railroad, I established a camp or central station, where I fitted up an improvised gallery and a living-room. From this station my various excursions radiated to every point of the



HAROLD A. THURLOW

MEDITATION

compass, like the ribs of a spider's web. At the end of three months I was quite comfortably located, admitting, however, that I passed through many ludicrous situations and interesting experiences before I arrived at this point in my sojourn.

Let it be understood that from the beginning I had planned a healthful recreation, all combined with an effort to secure a most interesting collection of rare views at a minimum cost for materials and other requirements of the trip. This is the story of my management of the venture, how I succeeded and some of the things that helped to make the trip one of both pleasure and profit.

I journeyed overland by wagon for thirty-two miles from Mena, Ark., my railroad destination, to Oden, on the Ouchita River, in Montgomery County. As I had figured previously, this village served as my nearest post-office during my stay in this country. This settlement, consisting of five general merchandise stores and a few log houses, is located on a strip of bottom-land at the foot of a range of mountains, known locally as the Brushies; geographically, as the Fouché range. From this point I penetrated the wilderness into the mountain fastness, following the blazed trail afoot to the headwaters of Fiddler's Creek, nearabout and in view of Round-Top Mountain, an extinct volcano within the confines of the recent government forest reserve. I was now ten miles from my post-office and about three miles from the nearest settler's cabin. Here, in a secluded nook, beside a gurgling mountain spring, I pitched my cabin — four square walls of



GUSTAVE F. SWENSON

THE FISHERMAN'S HUT ON THE DUNES

pine logs, with roof of hand-made boards, split from green virgin timber. I was fortunate enough to acquire the assistance of an experienced woodsman in the shack-building operations.

I had almost finished my collection of views when the "kidnapping" idea dawned upon me. I discovered that I was in the retreat of the hardy pioneer; and inasmuch as my surroundings were concerned, I was moved back in history to a period some fifty years gone by. To these mountain-hemmed forest inhabitants the photographic camera was a miracle-working contrivance previously unknown. Being capable of the wonders it actually seemed to perform, it was only natural that these simple folk should expect it to do even a great deal more.

The mother with the red-headed youngster could n't see "the favor" because baby's "brick-top" and papa's "pink whiskers" lacked the brilliant hue of the actual thing. At one isolated cabin I received an order for a dozen 5 x 7's at \$10. The business transaction was simple enough, but it was not so easy to make my patron understand that the group was dismissed immediately after I had pressed the bulb. Everybody remained seated long after I had folded my tripod and packed my outfit, until, finally, one of the group ventured to reassure me that the original order was for one dozen, and not, as I evidently presumed, for a single portrait. Of course I "took a tumble," and I was not slow to explain that it was unnecessary to pose twelve separate times to produce a dozen pictures. On other occasions the sitters expected instant delivery, believing that my mysterious contrivance operated somewhat on the principle of a sausage-machine.



THEODORE EITEL
AMONG THE BEECHES



All of this is but a part of the genuine humor in the life of the itinerant picture-taker which lends enduring fascination to amateur photography.

Going into the profits of the venture, I might suggest that all isolated, "away-from-the-railroad" territory is a veritable gold-mine to the "kidnapper" with pecuniary motives. A single trading-trip of three days' duration netted me enough supplies, such as native bacon, smoked venison, corn-meal, potatoes and other garden products, to do me for my entire three months' sojourn. During this time only about one-fifth of my time was devoted to "kidnapping," and yet I was enabled to depart with over two hundred dollars in cash after paying all expenses of the trip, including transportation, photographic materials, cabin-construction and groceries. This is one side of the story. The other is not quite so rosy. This deals with adversity — lack of chemicals, improvised substitution, disappointment from failures to make timely connections with the plate and paper-makers of the outside world and lack of kerosene as an illuminant for developing. Under these strenuous circumstances necessity compelled me to develop more than one order with the light of a pine-knot torch, and to substitute thin pine veneer from a shingle-mill for card-mounts. The latter admitted of some very artistic effects by applying ordinary mission stains of delicate tints.

To those who contemplate a similar venture I will describe a few ingenious home-made contrivances that proved of inestimable value to me. One of these is a compact camera carrying-case, fitted with a leather harness with adjustable straps and buckles, so constructed that the entire weight of the outfit might be evenly distributed between the hands and both shoulders. The regular canvas-covered cases as supplied by the camera-manufacturers are too large and cumbersome, chiefly on account of the extra space provided for plate-holders. My case was a home-made affair, of thin, light, pine boards, and just large enough to hold the closed camera and a dozen sample portraits. On the ends it was supplied with two iron rings with which the case was suspended under the left arm by two spring-snaps attached to the shoulder-harness. The latter was padded to ease the shoulders in carrying. This arrangement of spring-snaps permitted full use of the carrying-case without unbuckling the harness. On each individual trip I usually acquired enough business to necessitate carrying about two dozen plates, 5 x 7, and three or four 8 x 10's. Under ordinary circumstances this would mean more than a dozen plate-holders — considerable of a load within themselves. Of these I carried only three, making my changes at night from a home-made plate carrying-case. This case was also made from thin, pine lumber with a telescopic lid to make it absolutely light-proof. As an additional precaution I had the outside of the box covered with black paper and an additional covering of imitation leather over all. The inside of this box was slotted to hold about thirty plates, and the whole thing was only 11 x 12 x 6 inches in size. This and the tripod were carried in the right hand. A small ruby-lantern, candles, screw-driver and other small necessities were carried in the commodious pockets of my canvas hunting-coat. All of the developing, printing and mounting was done in the cabin in my mountain retreat.



WILFRED A. FRENCH

VIEW FROM MT. PILATUS

The Photographers' Invasion of Switzerland

WILFRED A. FRENCH, PH.D.

WHILE England is preëminently the land of amateur photography, and glories in a larger number of workers and photographic societies to the square inch than does any other country — Germany and the United States not excepted — it does not offer to the tourist-photographer so great a variety of subjects for his camera as may be found on the continent. In this respect, as well as in the number of snap-shots made by tourists each season, Switzerland easily ranks first among the countries of continental Europe. The sale to tourists of photographs of scenery and the usual objects of interest has yielded to that of the ubiquitous picture post-card, the manufacture of which is now an important universal industry, although it has not seriously diminished the activity of tourist-photography. Besides, a picture, scene or episode secured by the tourist with his own camera possesses an element of personal interest and association compared with which the commercial photograph, or even the picture post-card, however excellent, is insignificant.

While the attention of the photographic world is now being focused upon the city of Dresden, whither will flock visitors from every section of the globe to admire the splendid photographic exposition to be held there this summer, it is certain that the sight-seeing, which inevitably must follow, will not be confined to the beautiful Saxon capital, nor even to Germany, but will be extended to other parts of Europe. Among the countries to be enjoyed by thousands of pho-

tographers this season is Switzerland with its unlimited wealth of matchless scenery. It is safe to state that never before in the history of the land of William Tell will there have been such an invasion of camerists. The consumption of films and plates will be on a scale nothing less than prodigious. But the problem is not so much where this vast amount of sensitized material is to come from — for the plate and film manufacturers of both England and America are preparing to meet this unusual demand — as how the picture-taking propensity of the first-time visitors may be curbed when once, camera in hand, they enter this land of scenic grandeur. It is generally admitted that Switzerland contains within its small area of sixteen thousand square miles — twice the size of the State of Massachusetts — more attractive camera-subjects than any country of its size in the world. The firm which develops the most films exposed in Europe by American tourists is authority for the statement that in the number of photographic exposures Switzerland easily comes first. The temptation of the stranger to exhaust in one day as much film as was originally allotted to the entire passage through this ravishing country is so great that it is wise to provide well in advance. The camerist who, after leaving Dresden, will have photographed in Nuremberg, Rothenburg, Innsbruck, Venice and other places teeming with pictorial interest, probably will have learned to practise film-economy, unless he could afford to indulge in reckless expenditure. On the other hand, weather-conditions are not constantly favorable to photography in Switzerland. Rain frequently interferes with the best-laid plans, and the camerist is earnestly advised to make his time-allowance in Switzerland as elastic as possible, in order to provide against any disappointments.

The novice, naturally, will ask how he can best reach this photographers' paradise. The answer here given is based largely upon the personal experience of the writer, who has made numerous visits to this picturesque and fascinating country, and *three of them from Dresden.*

A favorite way is first to visit Nuremberg, the most famous mediæval city of Germany, reference to which was made in the last issue of PHOTO-ERA; thence, to Munich, the modern center of art-activity in Germany, from which excursions may be made to the not far distant city of Salzburg, to the Bavarian Highlands and Lakes; from Munich to Innsbruck, the picturesque capital of the Austrian Tyrol, and thence, on the famous Brenner Railway over the Tyrolese Alps to Verona, Venice, Bologna, Florence, Milan, Lakes Como, Lugano and Maggiore, and Locarno — at the head of the last-named lake. Here one takes the train for Switzerland over the wonderful St. Gothard Railway. The traveler whose only thought is haste rushes on until he alights from the railway-carriage at Lucerne. The writer, however, left the railway at the little town of Flüelen at the foot of Lake Uri, the southern arm of Lake Lucerne. Thus, he walked, never without his trusty 5 x 7 folding hand-camera, along the elevated, but easy, mountain-road, the Axenstrasse, to Tellsplatte — a distance of two and one-half miles. There one of the regular lake-steamers conveyed him over that incomparable sheet of water, Lake Lucerne, to the city of the same name. Camerists,

desirous to see as much as possible in the few days set aside for this tour, may dispense with what lies east of Lucerne and content themselves with the following itinerary: Lungern, over the Brünig Railway to Interlaken. The camerist is recommended to walk from Lucerne over the short but slightly Brünig Pass to Meiringen and Brienz, where he may take the steamer to Interlaken. The excursions to be made from here include the Lauterbrunnen Valley, Mürren (marvelous view of the Jungfrau range) and the Grindelwald, by railway; next to Berne, via Lake Thun. Here spend two days, at least, if weather be fair; thence, to quaint Basel. This particular Swiss tour was described by the writer in PHOTO-ERA for May, 1906. Persons having already visited Paris may travel as follows: Basel to Strassburg, across the Rhine to Appenweyer, Heidelberg, Frankfort and Mayence (Mainz). Here a slow steamer should be taken as far as Bonn; then by rail to Cologne and on to Rotterdam (a convenient and desirable port of embarkation for New York) via Amsterdam, Haarlem and The Hague.

To many camerists who prefer to cross the Atlantic to Rotterdam, the route just described, but reversed, will appeal successfully; in which case, the following modifications are suggested: Rotterdam to Cologne, Bonn, the Rhine, Mayence, Heidelberg, Frankfort and thence, by night, to Dresden. After having exhausted the Exposition and the many enjoyable sights the city affords, leave Dresden for Nuremberg, Munich, etc., as already described, as far as Basel (Switzerland); thence, directly to Paris. From this point the port of departure for home — Boulogne-sur-Mer — is three and one half hours distant by rail. Others, instead of continuing to Rotterdam, the end of their ocean voyage, may wish to leave the steamer at Boulogne-sur-Mer, journey to Paris, thence to Basel — or from Paris to Lake Geneva, Lausanne — Berne, Interlaken, Lucerne, the Swiss-Italian lakes, northern Italy, the Tyrol, Bavaria and Dresden. After a stay of a week or so at the Saxon capital, the homeward journey may be made as follows: Dresden to Leipsic (the historic museum on the battlefield of Leipsic, 1813), Jena, Eisenach (the Wartburg made famous by Martin Luther), Frankfort, Heidelberg, Mannheim, Mainz, the Rhine to Bonn, Cologne, Amsterdam, Haarlem, The Hague to Rotterdam and thence the steamer for home. If a visit to England is contemplated, nothing is easier than to go by steamer from Rotterdam to London — a comfortable trip by night.

To include Berlin, the German capital, in the tourist's itinerary would seem to necessitate an ocean-journey with Hamburg as its terminus, and at a greatly-increased cost. A railway journey of nearly six hours conveys the tourist from Cuxhaven via Hamburg to Berlin, a modern, up-to-date city, brilliant, imperial and chilling; without scenic attractions, but possessing an important picture-gallery — surpassed by the one at Dresden — inadequate returns for considerable expense. Dresden is about three hours by railway distant from Berlin.

Switzerland may be approached from Dresden, also, by a short and direct route, yet including Nuremberg and Munich, but with a view to leaving Italy for another year's visit; viz., Munich to Bregenz, at the foot of Lake Constance,

and thence, by steamer, to historic Constance at the other extremity of the lake. The camerist will find here much to attract his photographic fire, after which he should pay his respects to the Falls of Schaffhausen, where his tour of Switzerland may begin. Zürich is his next objective-point, followed by Lucerne, Lake Lucerne, Meiringen, Interlaken, Lake Thun and Berne. Camerists bound to the Rhine and the Netherlands, with Rotterdam as the port of embarkation for America, will continue on to Basel, Strassburg, Heidelberg, Frankfort, Mainz, the Rhine, etc. Others may proceed to Basel and thence directly to Paris; while those who wish to enjoy the region of Lake Geneva may travel as follows: Berne, Lausanne via Freiburg, still by rail, on to Vevey or Montreux — both charming but fashionable summer resorts and situated at the eastern extremity of Lake Geneva. Only a few miles away by electric tram is the prettily-situated and much-photographed Castle of Chillon. It will pay the camerist to linger a day or two in this entrancing locality to await a favorable time to photograph the château against the radiant curtain formed by the Dent-du-Midi. At Villeneuve the camerist takes the steamer and starts upon a voyage of about four hours' duration along the northern shore of Lake Geneva. Geneva is more French than Swiss and is delightfully situated, with pleasant excursions to Chamonix and Mount Blanc, and, also, enables the camerist to procure a fresh supply of plates or films, though reliable material may be purchased also in Zürich, Basel, Bern and Lucerne. The next objective-point, naturally, is Paris, which is reached in nine hours from Geneva. If the journey is extended to Brussels, Antwerp and Rotterdam — not far away — it will complete an ideal round-trip, as delightful and comprehensive as it is possible to plan.

Camerists on the way to Europe and desirous to visit Paris *first*, should consider very seriously the landing-points from which the railway journey to Paris is to be made. Such a long, dreary and tiresome ride of nine hours as from Cherbourg to Paris should be avoided, if possible. The writer was obliged to make this journey, several years ago, and on no account will he repeat the unpleasant experience. Some lines land passengers at Havre, which is a little over four hours, by express, from Paris; other lines land them at Boulogne-sur-Mer, only three and one half hours distant from Paris, by rail. A similar question must be considered by tourists who are on their homeward journey from Paris, or who desire to cross the English Channel to England. In the latter case, Boulogne and Calais are preferable. England may be easily reached, also, from Rotterdam or from the Hook of Holland, which is a very easy trip over night and affords the traveler an opportunity to view the Thames from its mouth as far as London.

A word to camerists who visit Europe for the first time. They cannot do better than join one of the small, select parties which are being formed under the management of reliable travel-bureaus. Individual travel, while it has eminent advantages, is not for those to whom journeying abroad is a sealed book. Here organized travel under competent leadership is much to be preferred, not only on the score of freedom from care and responsibility, but of economy, sociability and sympathetic interest derived from congenial companionships.



WILFRED A. FRENCH
CHALET AT MEIRINGEN
VIEW FROM MÜRREN
VIEW NEAR BRIENZ



EDITORIAL

Pictures in Our Public Schools

ABOUT a year ago PHOTO-ERA called public attention to the extent photography was used in the public schools of this country as a means of graft. The object of criticism was the unscrupulous methods adopted by some photographers to secure the privilege of making the pictures of the graduating-classes. Thanks to the vigilance and energetic action of the headmasters of certain schools, this particular form of fraud has now been practically eradicated. There remains, however, another kind of graft, or, rather, a variation of the same and, like it, associated with photography and ravaging our public schools. It is as ingenious as it is insidious in character, and is firmly established in its habitat — a parasite which will be found difficult to get rid of. It will not be easy even to clip its wings. The promoter's confederates in this petty swindling are not among the scholars, but among the teachers; hence the gravity of the situation. But let us consider this new swindler's opportunities and his *modus operandi*.

It has long been the custom of a graduating-class to present to its school a souvenir in the form of a picture or a piece of statuary. The money for the purchase of this gift is contributed by the members of the graduating-class, each one giving an amount proportionate to his means. As the class is obviously not qualified to make an adequate selection, it is assisted by one or several of the teachers. In most cases the teachers themselves are no judges of art and are naturally bent on patronizing the corporation in which they have been induced to become financially interested. The result of the purchase is generally what might be expected — a deplorable fiasco. This criticism, however, does not apply to statuary, which, in the main, is quite satisfactory.

The sad feature of this annual school art-graft is that those of the photographic reproductions of the self-styled art-company which are seen in our public schools are little better than travesties upon art. And yet this corporation enjoys an unwarranted success in purveying pictures to the unsuspecting scholars of our public schools. Thus competition on the part of honest and reputable art-publishers is virtually shut out. This is why the walls of our public schools, more particularly those in the West than hereabouts, are disfigured by pictures the frames of which possess more value than their contents. As to the compensation of the school-teachers for their services rendered the picture-manufacturers, the less said the better. A year or two will suffice to open the eyes of the teachers to the fact that they themselves have been cruelly deceived. And this will not be the only cause of regret to men of honor.

Is it not time that the proper authorities put a stop to this sort of thing? Why not follow the example set by the State of New York, where one man, an

art and photographic expert, is made responsible for the quality and character of all pictures intended for use in its public schools? The purchase-money for the class-memorial is not appropriated by the State or the city, nor donated for the purpose, but is furnished exclusively by school-graduates, to many of whom even the smallest contribution represents a personal sacrifice. A sum of money which in most cases suffices for the acquisition of pictures that are veritable works of art, and which possess a permanent educational value as well as an elevating influence — copies in carbon or photogravure — is expended for perishable reproductions which have little artistic or technical merit. Fair competition is out of the question. Unscrupulous picture-concerns exert improper influence in favor of their goods. Besides, our public-school teachers will have paid dearly for the privilege to exercise bias in aiding the purchase of class-memorials.

Preparations will soon be making for the collection of funds for the annual class-gift. It is these funds that the greedy eyes of the parties above described will be fastened upon. Who will have the courage to stretch out an arresting — a saving — hand?

Tourist-Photography

A DEPLORABLE feature of camerists traveling in Europe or other parts of the world is the lack of time which they allot to the photographing of objects or scenes which meet their eye. Few, indeed, are the cases in which light and weather-conditions are favorable to photography. The flying trip ordinarily indulged in by the average American traveler in Europe leaves little time for the critical consideration of a pictorial view. Carried away by enthusiasm in beholding, for the first time, an old castle, a picturesque house or a notable monument, the camerist impulsively levels his camera and makes an exposure or series of snap-shots with little or no regard for the prevailing conditions of light, the position of the sun, the adjustment of his camera or pictorial composition. Pictures made under excitement or with haste are seldom satisfactory. Hundreds of such photographs, accompanying well-written articles, have been submitted to the editor, but could not be accepted on account of their poor quality — due to hasty use of the camera.

It is, therefore, a subject for congratulation that touring-parties, limited in size and under competent leadership, have been organized with a view to afford adequate opportunities to photograph pictorial objects *en route*. The time allotted to localities teeming with pictorial material will be such that the camerist will be enabled to study his picture with reference to proper view-point and adequate lighting. If it cannot be photographed satisfactorily the first time, a second visit may be made when conditions are likely to be favorable. This is, obviously, a very important point and should commend itself forcibly to camerists visiting Europe this season. It will not, therefore, be a choice either of photographing an object under unfavorable conditions of light and weather or not to photograph it at all.

OUR ILLUSTRATIONS

THE last annual contest of PHOTO-ERA gave us so many delightful prints for reproduction that we have wanted to use some of them in the last three issues; but other features, previously arranged, made it impossible to do so. Doubtless several more will be published from time to time, but it was thought advisable to present to our readers this month a few of those which were most likely to appeal to the popular taste. The first eleven subjects in this issue have, therefore, been chosen with this aim in view.

"Kitty's Breakfast" is in Mrs. Cone's happiest vein, for, while she is always successful with her little models, there is in this particular subject even more than ordinary spontaneity; its simplicity and human appeal are irresistible. Everything rings true except the wooden shoes, which, unfortunately, are entirely out of proportion; yet even this defect is subordinate to the main idea. Pictures like this are the kind of genre-studies one likes best to have about; for, like Billiken, they keep us in good humor, and that means much. Data: June, 10 A.M.; good light; R. R. lens, stop 32; 1 second exposure; Stanley plate; pyro developer; gum-bichromate print.

Quite as appealing in its way is "Uncle Remus," by A. F. France, which, unfortunately, is not done justice in reproduction. It portrays a scene familiar to us all, and so is the more interesting. The figures are well placed, with interest centered on the story-teller, while the facial expressions are excellent. It should be noticed how concentration of interest is aided by the fact that the costumes of the boys are lighter than that of the central figure. Had a painter treated this scene he would probably have had a different background, but this is not impossible for the photographer. The dark line at the left of the negro's head, and the mass at his right, might be lightened to advantage, while the tree-trunk above the boy's head is unfortunate in its location and ugly in its lines. Even this might be changed by a skilled hand. Data: October, 3 P.M.; soft light; Goerz lens, 8½-inch focus, f/16; ½ second exposure; Stanley plate; metol-hydro developer; Royal bromide enlargement.

Surely "There is comfort just over the hill," for J. H. Field says so, and says so very convincingly; for there is that about this print which stirs the imagination and calls to mind the good cheer experienced in the country at Christmas or Thanksgiving. The composition here is excellent, the buildings well placed and the sweep of line beautiful, leading directly to the point of greatest interest. True perspective and superb snow-texture and tone-quality give an almost stereoscopic effect. Data: March, 9 A.M.; sunshine; rear half of R. R. lens, 15-inch focus, used wide open; 1 second exposure; Cramer Medium

Iso plate; Ingento screen; pyro-soda developer; platinum print.

Much of the beauty of Dr. Scheer's print "The Long Night Is Near" has been lost in reproduction, for it was toned to show the sunset glow and its delicate reflection on the snow. It is still a charming subject, however, even in monochrome; its lines are pleasing, and the majesty of the silent, somber pine quite in harmony with the scene and hour. Sunsets, more especially of the red order, can hardly be rendered better than by Dr. Scheer's method of sulphide redevelopment and gold sulphocyanate toning, described in PHOTO-ERA for March, 1908. Data: January, near sunset; R. R. lens, 8½-inch focus; Orthonon plate; tank development with pyro-soda; enlargement on Royal bromide, redeveloped and toned.

H. R. Gebhardt's "Sperry Light" is certain to appeal to every poetic nature. The long horizontal lines convey the feeling of calm, quiet, flatness, expanses and, hence, isolation and loneliness. This is still further accentuated by the lighting, which throws the lighthouse into silhouette and obscures detail.

Although with the print available it was impossible adequately to reproduce "Old Whitby Town," by James McKissack, our half-tone is sufficiently true to the original to indicate that there are often interesting pictorial motives among the housetops. The foreground of tiled roofs and chimney-pots is agreeable in its irregularity; but of greater importance is the effect of downhill perspective secured by a high horizon and the accentuation of the line of sight, in this case the near-by roofs. Data: August, 10.30 A.M.; good light; single combination of Zeiss Protar, f/12.6; ½ second exposure; Imperial Ortho plate; Ortol developer; enlargement on Royal Cream bromide.

"Mountain Meadows Sheep," by N. Brock, is in many ways a remarkable creation, manifesting the keen pictorial instincts of its maker, as well as his wholesome observance of the canons of art. It would be difficult to secure a more satisfactory arrangement of the sheep themselves, or a more beautiful setting in which to place them. The print, however, shows that a vast amount of hand-work has been done upon the negative, and, while the alterations have, doubtless, benefited the composition, they are, nevertheless, artificial and do not ring true. Data: April, 5 P.M.; low sun; single combination Protar lens, 19½-inch focus, stop 16; ½ second exposure; Orthonon plate; pyro developer; Artura print.

"Central 444, ring 2" is probably the telephone-call of H. L. Bradley; but whether this be true or not, his print of that name is genre-work of a high order. His little model has a far-away

look of expectancy with an undercurrent of mischief which is altogether charming. The spot of light above the head is the one serious defect in the print. Data: December, 3 P.M.; light from an ordinary window; Willace lens, 16-inch focus, used wide open; cap exposure; Seed 26x plate; pyro-soda developer; Angelo platinum print.

Harold A. Thurlow's "Meditation" is one of the most decidedly original poses we have seen for some time, yet it is thoroughly consistent with its title. Although a bit angular, the general effect is praiseworthy and the softness and low tone exceedingly beautiful. Data: May, 3 P.M.; R. R. lens, f/8; 10 seconds exposure; Stanley plate; sepia platinum print.

"The Fisherman's Hut on the Dunes," by Gustave F. Swenson, will not bear critical analysis, yet it is agreeably effective as a whole. The loneliness of the place is accentuated by the expanse of foreground, all parts of which are somewhat monotonous and much alike. The sand high up at the right seems to attract too much attention, because of its high key. Data: November, 4 P.M.; good light; B. & L. convertible lens, 8½-inch focus, U. S. 8; 2 seconds exposure; Ideal ray-screen; Orthonon plate; ortol developer; kallotype print.

"Among the Beeches" seems to be Theodore Eitel's favorite haunt, and his many and varied renderings of these attractive trees are almost invariably excellent. The present print seems to show as none other has done a different plane for each tree. The effect appears almost stereoscopic, and the distance truly remarkable. Data: August, 10 A.M.; sunlight; Zeiss Protar lens, 19½-inch focus, f/12.5; ½ second exposure; Seed 26x plate; pyro developer; warm black carbon print.

"View from Mt. Pilatus," looking towards the Bernese Alps, a panorama of overwhelming grandeur. This, as well as the three other Swiss views, are by Wilfred A. French, editor of PHOTO-ERA. Data: Voigtländer & Sohn Collinear, Series III, No. 4, 7½-inch focus, f/18; November, 1.35 P.M.; sun, slightly hazy; exposure ½ second; Kodak film; Solio print; pyro developer.

"Chalet at Meiringen." Data: Voigtländer & Sohn Collinear, Series III, No. 4, 7½-inch focus, f/12; June, 11 A.M.; cloudy; exposure ½ second; Kodak film; Solio print; pyro developer.

"View from Mürren." The prospect that unfolds itself at Mürren — an elevated point above the Lauterbrunnen Valley — is grand in the extreme. In this particular case the view includes the range of peaks to the right of the Jungfrau, such as the Gspaltenhorn, the Breithorn, the Tschingelgrat, etc. Data: Voigtländer & Sohn Collinear, Series III, No. 4, 7½-inch focus, f/18; June, about 2 P.M.; sun, a little hazy; exposure ½ second; Kodak film; Solio print; pyro developer.

"View near Brienz." Data: Voigtländer & Sohn Collinear, Series III, No. 4, 7½-inch focus, stop f/12; June, 3 P.M.; good light; exposure ⅓ second, from steamboat; Kodak film; Solio print; pyro developer.

In judging the contest devoted to "Photographs of News Events" it was necessary to keep

several things in mind. The importance and interest of the event, naturally, took first place; the success with which it was made realistic by the picture claimed second thought; the quality of technical work with respect to adequate reproduction came next; and last, but by no means least, the artistic value of the picture as a whole was considered, particularly with respect to composition. In fact, an attempt was made to judge the pictures exactly as newspaper men would do. This, it should be remembered, is not our usual custom, but it seemed the only fair way to treat the present contest.

"A Rectorial Fight," by James A. Jarvis, is interesting as being one phase of our higher education. Rectorial elections are usually attended by scenes of combat and disorder between the opposing political factions among students, and this print represents a pea's-meal-and-flour fight for the standard of one of the candidates at the Aberdeen University. Data: October; 1/100 second exposure at f/6; Imperial Rapid plate; Ortol developer; Imperial P. O. P. print.

"The Wreck," by L. M. Reightmyer, is an excellent record photograph showing the extent of the wreck and damage done, in addition to the exact locality, as few photographs of its kind succeed in doing. At the same time, all the strong lines of the composition lead to the derailed train. Data: January, 1 P.M.; cloudy; symmetrical lens, f/11; ½ second exposure; Stanley plate; pyro developer; Azo print.

J. H. Jost also contributed an excellent photograph, entitled "Sunken at the Dock," which has great dramatic interest when one knows its story. The steamer is the *Parisian*, which was rammed by a German steamer twelve miles out of Halifax harbor and raced full speed to her dock, where she sank five minutes after arrival with nine hundred passengers on board. Data: August, 5 P.M.; bright sun; Goerz Dagor lens; 5/100 second exposure; Seed 27 plate; Aristo Carbon Sepia print.

"Criminal Negligence," by A. R. Allen. Data: December; bright sun; Cramer Banner plate; ¼ second exposure; f/32; metol developer; Artura Iris print.

"Wrecking the Ferris-Wheel," by C. Ney Pickering. Data: Afternoon sunshine; Reflex camera; Goerz lens, f/6.8; 4 x 5 Hammer plate; 3/100 second exposure; enlargement on P. M. C. bromide No. 1.

Leander Miller's "After the Accident" gives an excellent idea of the damage sustained by the *Florida* after ramming the *Republic*. Data: January; partly cloudy and a little hazy; Plasmigmat lens, f/11; Kodak film; 1 second exposure; tank developer with pyro.

"Flood at Austin, Minn.," by F. W. Greenman. Data: 3A Kodak; 1/50 second exposure.

"The Marathon Winner, John J. Hayes," by T. W. Kilmer, M.D. Data: Graflex camera; Seed 27 plate; Goerz Dagor lens, 8½-inch focus, f/11; 1/100 second exposure in sunlight; tank development; glossy Azo print ferrotyped.



JAMES A. JARVIS
A RECTORIAL FIGHT
FIRST PRIZE — NEWS EVENTS

L. M. REIGHTMYER
THE WRECK
THIRD PRIZE — NEWS EVENTS



THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston. Send a stamp for complete prospectus.

"And it's O for the wide world, far away!

"T is there I fain would be.

It calls me, claims me the livelong day,
Sweet with the sounds and the scents of May,

And the wind in the linden-tree.

The wild birds sing in the heart of spring,

And the green boughs beckon me."

'T is thus the poet expresses our own feelings when Spring is once more queen of all the woods and ways. Lowell, writing on a day in May when the air was chilly, the sky overcast with clouds, and everything wore a gray, wintry look, asserted that May was a pious fraud of the almanac. Later, when the day was bright and breezy, cloud-shadows chasing each other over hill and meadow, and there was a sudden forthputting of green in bush and shrub, in tree and vine, he changed his tune, vowed May was the dearest month of the year because it held in it the beginnings of things. He says:

"Afore you think

Young oak-leaves mist the side-hill woods with pink;

The cat-bird in the laylock bush is loud;

The orchards turn to heaps o' rosy cloud;

Red cedars blossom, too, though few folks know it,

And all looks dipt in sunshine like a poet."

On this special May day everything does look "dipt in sunshine," and the scribe longs from "inky sleeve and fretful quill to find reprieve," and, joining the holiday-makers, to go a-Maying.

But who would think of going Maying without a camera? May is such a fine month for out-of-door camera work! The skies are so diversified, the misty look of the trees and shrubs so picturesque; and then there are all the opportunities for genre-studies in the way of ploughing, and sowing, and pruning, and planting. Surely May is one of the best for the amateur to make his own photographic beginnings.

During this summer the editor of the Round Robin Guild would like its members to pay special attention to composition, and with that end in view some portion of the department will be devoted each month to the study of composition, which it is hoped will be helpful especially to those members who lack an art-training.

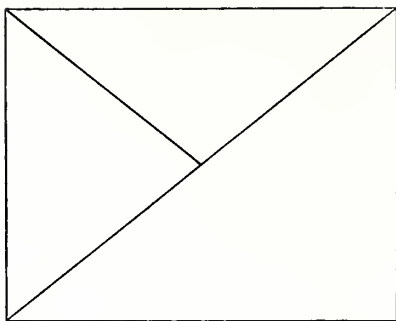
The majority of landscape photographs lack pictorial interest; and when looking at them the observer is reminded of Kipling's comment on certain pictures, "There is no special reason why they should be done at all!" Where one finds a landscape photograph which has its own "excuse for being," in that it is an artistic piece of work and has a charm all its own, one finds hundreds for which "there is no special reason why they should be done at all." There are amateurs who, set down in a spot full of artistic possibilities, could not produce anything worth while; and there are others who, given a marshy ground with its growth of weeds and rushes and a sluggish little stream winding through them, will make a picture which is as charming as it is artistic.

What is the difference? One thinks that his picture must be good, for it is an exact representation of the scene. The other has studied the effects of clouds and sunshine, has selected his point of view with care, and chosen the time of day most fitting for the effect he intends to secure. In short, one has studied and follows the laws of composition; the other just "takes a view."

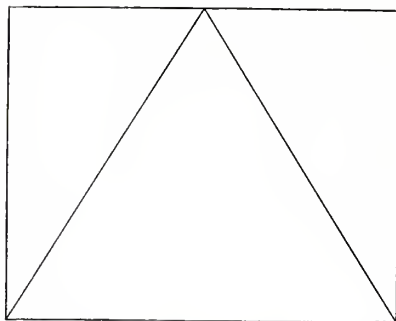
Artistic landscape-photography requires that the amateur study the balance of light and shade, the arrangement of foreground and objects, and the pictorial effect to be obtained by the clouds and sky in connection with the scene. Then the negative, instead of being developed too long, must be taken from the developer while the half-tones are delicately graded and the high-lights still transparent. With such a negative one can make beautiful prints on almost any kind of paper, and with platinum, carbon or ozobrome it is an ideal printer.

The amateur who would like to succeed in making artistic landscape-pictures could not do better than to follow the conventional methods of the old painters. They had three forms which they followed in arranging their pictures; one was the Angular, the second was the Pyramidal, and the third the Circular, or, more properly speaking, the Oval.

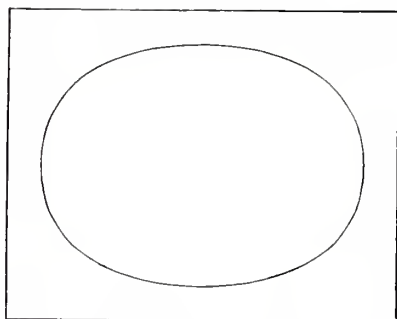
In the first, the Angular, the artist divided the space of his canvas into three imaginary triangles, the first taking up half of the canvas and extending from an upper corner to the opposite lower corner, and the other half divided into two triangles of equal size.



The Pyramidal form was also a triangle, the base of which was the lower edge of the canvas and the apex the point on the upper edge equally distant from both sides.



The Circular, or Oval, was an imaginary oval drawn so that it was at an equal distance from the center of top, bottom and sides.



The way in which the objects were arranged in the Angular was by grouping the larger and principal objects in the space devoted to the larger triangle; the smaller and less prominent objects were placed in the lower triangle, while the other triangle was reserved for distant objects, hills, etc., and the greatest sky-space.

In the Pyramidal form the larger objects were at one side or the other of the triangle, while the spaces at the sides were for subordinate objects, but necessary to the composition of the picture.

The Circular, or Oval, form required that the larger objects begin at one side and extend up to and gradually widening out until they reach the highest point of the oval; while on the other side were the smaller objects, which reached only half way up the oval.

In order to get the most of this self-training in composition, the amateur will find it greatly to his advantage to rule his ground-glass with the three forms. The Angular could be ruled with black, and to avoid confusion the Pyramidal form could be ruled in red. The Oval, being entirely different in shape, could be ruled either in black or red or another color — blue.

In viewing the scene in the camera — remembering, of course, that the lines must be bottom-side up to the eye, the principal object, if trees, for instance, may extend above the line, if it is to be the Angular form, without overstepping the rules of good composition. Then in the smaller triangle turn the camera so that the less conspicuous objects shall come within its scope. Branches of trees may reach across the upper triangle, but should not obscure the space entirely.

In the Oval the trees may start at the lower edge of the picture and, as branches so often do, spread so that they come half way across the plate. This is the form that certain trees take. At the other side of the oval the objects are smaller in form and less prominent. This is a good form to follow in making glimpses of lakes or ponds. The shape of the water with the farther edge bordered with trees or hills helps and conforms to the Oval style of composition.

Studying the scene on the ground-glass and observing whether the objects included come within any of the lines will help one to judge of the harmony of the composition whether or not the subject is of special interest.

To judge pictures already made, draw on three separate pieces of very transparent paper the three forms of composition, the paper being the size of the pictures. Place the pieces of paper in turn over the landscape photograph and see whether the objects come within the bounds of any of the forms. If they do not come within the compass of either of the forms, then one may conclude that his picture is lacking in good composition.

In finishing landscape-prints look well to the margins. Nothing should appear on the margins — no high-lights, no obtrusive objects, nothing to detract the interest from the theme of the picture itself.

Hamlet said, "I could be bounded by a nutshell!" Let the landscape-photographer be bounded by his margins.

The subject of composition is such an important one in the development of better Guild work that it will be continued in the June PHOTO-ERA, the point treated being "Lines."

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

RULES

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.

5. Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

SUBJECTS FOR COMPETITION

April — "The Brook in Springtime." Closes May 31.

May — "Farming-Scenes." Closes June 30.

AWARDS — NEWS EVENTS

First Prize: James A. Jarvis.

Second Prize: J. H. Jost.

Third Prize: L. M. Reightmyer.

Honorable Mention: A. R. Allen, C. Ney Pickering, Leander Miller, F. W. Greenman, T. W. Kilmer, M.D., Clare J. Cray, J. M. Conner.



J. H. JOST

SUNKEN AT THE DOCK

SECOND PRIZE — NEWS EVENTS

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

NETTIE C. MAXIM.—It depends greatly on what sort of ink you were unfortunate enough to get on your negative whether it may or may not be removed. Harden the film with alum, and then soak in a strong solution of oxalic acid. Muriatic acid may be used in place of the oxalic acid, but is more likely to stain.

HELEN MURRAY.—To remove varnish from negatives, soak for a short time in methylated spirits and rub off gently with a tuft of absorbent cotton. If the varnish is stubborn about coming off, as is often the case, when of long standing, add a little ammonia to the spirits, rinse in clear spirits and wash.

JENS T. JENSEN. — The grains in troy, avoirdupois and apothecaries' weight are equal. If your blue-print paper has not been exposed to light the emulsion will wash off by immersing the paper in water, slightly tepid. If, however, it has been exposed to light I do not know of anything that will remove the emulsion without staining the paper. Paper is so cheap it would be better to take fresh paper. Washing-soda will remove stains from porcelain trays, also muriatic acid if the stains are of long standing. Dilute the acid one ounce to ten of water, and do not put the hands in the solution.

B. SILVERSTON. — You can make a negative to replace the one which was broken by taking a print made from the negative and using it to make a print from, the same as if it was a negative. Use glossy paper and tone slightly, then fix in hypo. If one has very valuable negatives on glass it is a good plan to make a paper negative in this way, and thus guard against the loss of the negative by accident.

ARTHUR WISSLER. — Most photographers have come to agree that by using the tank and dilute developer one can get out of a negative all that could be obtained by the most skilful manipulation in hand development. In the matter of factorial development the point is not that the developing done by this means will insure a perfect negative, but that if one uses the factor, whether the plate be under or over-exposed, when the time indicated by the factor has expired any further development will not produce any more satisfactory results.

NELLIE LOUCKS. — A hand-book giving rules of competitions has been mailed to you, also advice on the purchase of a camera. Prints sent to the competition should be mounted, and each separate print marked with the name and address of the sender. This will insure prompt attention and safe return of the prints.

GEORGE INGALLS. — See answer to B. Silverston in regard to making a negative from a print by contact-printing. If the paper on which the print is made is heavy and thick, make it translucent by waxing it, or by varnishing with transparent varnish. Let the varnish dry thoroughly before making the print.

E. K. HUMPHREY. — A very soft silk or linen handkerchief which is much worn may be used with safety in cleaning a lens, also a piece of velvet chamois which has not been used for anything else. Breathe on the lens, then rub with a circular movement very lightly. The surface of the glass is very highly polished and easily scratched, so one must exercise great care in the cleaning.

F. L. EVANS. — Ozobrome prints are made by ordinary gas or lamp light. One does not need the ruby light. If made in daytime pull down the shades and work in the subdued light.

M. F. WATERS. — Yes; prints three and one-quarter by five and one-half are eligible in size to be entered in the monthly print-competition. Have each print marked with name and address on the reverse side of the mount.

GEORGE T. H. — A matt varnish for the back of negatives which takes the pencil well is made of twenty grains of sandarac, twenty grains of gum mastic, two ounces of methylated ether and half an ounce of benzole.

N. M. L. — Aqua regia is a mixture of hydrochloric and nitric acids, and is used to dissolve gold and platinum. It is also used in the manufacture of chloride of gold.

FRED G. W. — The yellow high-lights on your gaslight pictures may be caused by the developer being too weak or too exhausted; by under-exposure and consequently a too long development. It is not a good idea to use old developer for prints. Use small quantities of developer and take fresh solution frequently. If parts of the high-lights are yellow it is because too many prints are fixed at once. Lines and markings on the prints may be removed by rubbing them gently with a tuft of absorbent cotton dipped in alcohol.

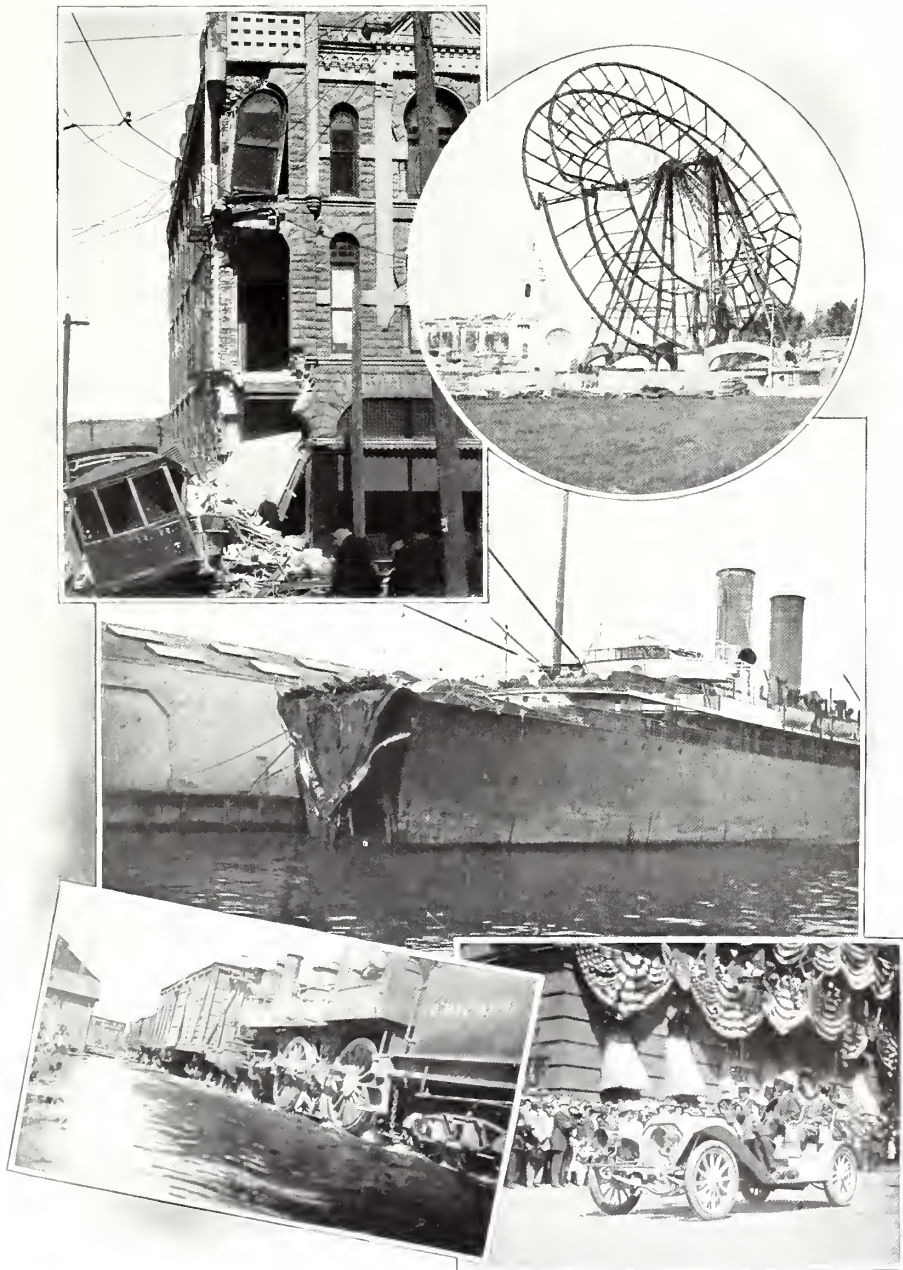
DAVID B. N. — Your plates which have turned yellow from intensifying in mercuric chloride may be restored by soaking them in a solution of Schlippe's salts, of the strength of five grains to an ounce of water. All traces of the intensification may be removed by soaking the plate in hypo solution of the strength of the fixing-bath — one ounce hypo to four ounces of water.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"CUB LAKE," G. I. — This is a picture of a little mountain lake. The surroundings are picturesque, but the point of view has not been well chosen. There are four distinct planes — the immediate foreground, running straight across the picture; the lake beyond, which appears more as a narrow stream on account of position of camera; a belt of woods stretching from side to side of the picture, and a range of mountains in the background. This locality ought to furnish a good subject, and if the artist will choose a better position for his camera, and take a "short view" instead of a distant one, the editor would like to have a chance at commenting on its good qualities. This picture is of a class very often made, an extended view on a small plate, and the result is seldom if ever satisfactory.

"BY THE SHORE," F. P. E. — The shores of a lake, the beach and a wooded bit showing at one side, and on the other the water and sky, furnish the material for this picture. Viewed from a distance, where one sees the form instead of the



A FEW HONORABLE MENTION PRINTS

From Left to Right: "Criminal Negligence," A. R. Allen; "Wrecking the Ferris Wheel," C. Ney Pickering; "After the Accident," Leander Miller; "Flood at Austin, Minn.," F. W. Greenman; "The Marathon Winner," T. W. Kilmer, M.D.

detail, the print is about evenly divided into dark and light, the light being at the left and the dark at the right. As a consequence the picture lacks balance, and the composition symmetry, because the darks are all massed together at one side and the whites at the other. The detail is well rendered, the half-tones being soft and well-modeled. It is a scene which looks well on the ground-glass in color, but translated into black and white is disappointing.

"SLEET AND SNOW," F. M. N.—Here is seen a valley with a creek running through it, the bushes and shrubs snow-laden; in the middle distance a group of buildings rendered low in tone and consequently blending with their surroundings; a tree-clad hillside at the left, the trees covered with delicate snow crystals. The fault with this picture is the dark curve which begins at the left of the picture and rounds off and ends at the right. In the center is a white patch, and if the artist will use his retouching-pencil and soften the shadows at the right, thus blocking out this obtrusive streak of dark, he will have a very interesting winter landscape.

"WATCHING AND WAITING," A. C.—A young woman stands at the bottom of a flight of steps leading up to a house. On the ground in front of her a big dog lies fast asleep. The picture does not illustrate the subject, for the dog lies fast asleep, and the young woman, with a very

pleased expression on her countenance, is looking straight at the beholder. The negative evidently has been properly exposed and correctly developed, and for a collection of "at home" scenes is very good. As a work of art, however, it lacks many of the essentials. There are too many different lines; the steps make one, a stone wall another, the windows another, and the clapboards a series of them. Let the artist try the subject again with a quieter background, and let the subject look far beyond the lens of the camera. "Ready for a Stroll," by the same artist, is well taken, but the same criticism will apply to the background. If there is any worse background than the clapboards of a house for a portrait, it must be more clapboards. They are always ugly. A fine picture of President Taft is spoiled because the artist posed him against a clapboard background.

"SHIP AHOY!" M. S.—This is a charming bit of work, and shows a child standing on a rocky beach, his hand aloft and his gaze far out at sea as if he really sighted a ship. The beauty of the print is in the delicate detail shown in the surroundings. The fault of the picture is the white sky and the too faint horizon-line. M. S. sends two other prints—one of "Surf," which is well done, and another called "The Sisters," in which, while the technical work is good, the subjects are too evidently posed.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
AnSCO Film, N. C. and Vidil	Hammer Extra Fast	Class 4
Cramer Crown	Hammer Extra Fast Ortho	Stanley Commercial
Cramer Crown Non-Halation	Hammer Non-Halation	Class 5
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Cramer Commercial
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Plain
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Ortho
Cramer Trichromatic	Seed L. Ortho	Defender Ortho Slow
Defender King	Seed Non-Halation Ortho	Hammer Slow
Defender Ortho Inst.	Standard Extra	Hammer Slow Ortho
Eastman N. C. Film	Standard Orthonon	Class 8
Ensign Film	Class 1 1/2	Cramer Slow Iso
Hammer Special Extra Fast	Lumière Ortho A	Cramer Slow Iso Non-Halation
Imperial Special Sensitive	Lumière Ortho B	Class 12
Imperial Orthochrome Special Sensitive	Lumière Panchro C	Defender Queen
Kodoid	Class 2	Seed Process
Magnet	Cramer Medium Iso	Class 100
Premo Film Pack	Cramer Medium Iso Non-Halation	Lumière Autochrome
Seed Gilt Edge 27		Lumière Red Label Slow
Standard Imperial Portrait		
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For May

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of May on any fine day between 10 A.M. and 2 P.M. when the sun is shining brightly and the lens is working at $f/8$, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if $f/11$, U. S. No. 8 is used. Treble it when the light is rather dull, and from 6 to 7 A.M. and 5 to 6 P.M. Increase it four times when there are heavy clouds and very dull light, or if $f/16$, U. S. No. 16, is used. For $f/5.6$, U. S. No. 2, give half. From 9 to 10 A.M. and 2 to 3 P.M. increase the exposure one-fourth. From 8 to 9 A.M. and 3 to 4 P.M. increase it one-half. From 7 to 8 A.M. and 4 to 5 P.M. increase it two and one-half times. From 5 to 6 A.M. and 6 to 7 P.M. increase it six times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds	1/1600	1/800	1/640	1/512	1/400	1/320	1/200	1/160	1/128	1/100	1/64	1/8
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds	1/800	1/400	1/320	1/256	1/200	1/160	1/100	1/80	1/64	1/50	1/32	1/4
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
Portraits outdoors in the shade; very dark near objects	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
Badly-lighted river-banks, ravines, glades and under the trees	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	1/4	1/2	3/5	3/4	1	1 1/5	2	2 2/5	3	4	6	48

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

COLOR-CINEMATOGRAPHY

SINCE last December when I described the system of moving-picture projection in natural colors which has been worked out by G. Albert Smith, of London, England, the method has passed from the experimental to the commercial stage. A few improvements have been made and, on December 9 last, states *The British Journal of Photography*, Mr. Smith demonstrated the results of his work before the Royal Society of Artists. At this exhibition it at once became apparent that the two-color method is capable of giving quite as complete a range of colors as any three-color process. This was shown by comparison of several Autochrome records of posed subjects and the cinematograph rendering of the same figures in motion.

It was only after extensive experiments had been performed along several different lines that the present two-color method of projection was decided to be the only one which is now practical. Of the three-color methods tried, one of the first was the use of three separate films on which three simultaneous records were made, each through one of the three primary color-filters. This idea was finally discarded because registration of the three images on the screen proved to be practically impossible, even with the best of apparatus. The film is so small and the magnification so great that the slightest defect is tremendously exaggerated in a method of this sort and the resulting picture is almost unbearable in its confusion. As soon as it became evident that an alternation method employing only one film must be adopted, a three-filter apparatus was experimented with. In such a system the separate monochrome color-records are projected through their respective color-filters in rapid succession on the screen and combined by the eye of the observer, and it was found that three colors made too great demands upon the persistence of human vision. This number was then reduced to two with great success.

Now it must not be forgotten that the term "two-color method" applies here only so far as the two taking and projecting-filters are concerned, and because the color-records are made in pairs instead of sets of three, as in ordinary natural-color photography. All authorities on the phenomena of light admit that white light can be produced by mixing two rightly-chosen colored lights, and also that white light contains all colors. This dual division of the spectrum is the secret of Mr. Smith's success, and the many experiments necessary exactly to determine these colors have occupied his attention for some time past. The results, however,

are worth while, for he has shown that this method is capable of producing all colors, including white.

One of the most serious difficulties in true color-rendering which had to be met was the super-sensitiveness of the photographic emulsion to blue and violet light, although these colors are toward the less luminous end of the spectrum. The film used is made especially sensitive to red and green and also, by careful adaptation of taking-filters to emulsion, the defect referred to above is minimized so far as possible. As a further aid toward true rendering it has been found that a final correction is possible in projection. At first thought one would suppose that the same filters would be used for taking and projecting, but the unfortunate super-sensitiveness of the emulsion to blue and violet cuts down these colors to such an extent that if the same filters were used for reconstructing the colors in projection the absence of blue and violet would be very noticeable — the whites would be yellow and the blues weak. This was the chief criticism of Mr. Smith's first efforts, but he has since modified his apparatus so that the missing beams required to produce white light when all are mixed are now supplied in proper proportion by a supplementary shutter. The result is true color-rendering.

This latest development seems to make satisfactory moving-pictures in natural colors an accomplished fact, and one of its best features is that standard film with standard perforation is used, so that the method may be adopted by operators of ordinary moving-picture machines with but little extra expense. Films made by this method should prove much more lifelike than those ordinarily seen, not only because of the introduction of color, but because there are more presentations per second — sixteen per second through each filter, or thirty-two pictures per second in all.

FINGER-MARKS ON NEGATIVES

A FRIEND told me recently that he had often removed finger-marks from the film of his negatives by applying with absorbent cotton a solution containing a few drops of hydrochloric acid in a couple of ounces of water. If infallible, the method is simple and desirable. In any case it is worthy of a trial.

VIGOROUS PRINTS WITH STALE PLATINUM PAPER

A PARAGRAPH in *Photography and Focus* suggests the fact, not generally known, that flat, lifeless results with stale platinum paper may be avoided by adding a drop of a ten per cent solution of potassium bichromate to every ounce of developer. Uranium nitrate also has the same effect.

SKIES IN LANTERN-SLIDES

BLANK white skies are everywhere undesirable; they are bad enough in a paper print, but when they are represented by clear glass in a lantern-slide they are much worse. The light shines through them so powerfully that the effect of a soft, delicate slide is ruined. This probably explains the method of the average slide-maker: he gets his landscape strong so it will not be dulled down by the sky, and the result is a harsh, glittering image on the screen. The best slides made on ordinary lantern-plates are secured by reduction, and a method of combining landscapes and clouds, applicable only to this method of work, is described by T. Kington, writing in a recent issue of *Photography and Focus*.

The scheme is, first, to make the landscape slide in the ordinary way, and then the clouds on another plate, which is to be used as a cover-glass, the exact time of development of the first plate being noted, so that the tone of the two plates may be alike. When the landscape-slide is finished and dry it is fastened with strips of adhesive plaster to the inner or ground surface of the focusing-screen of the lantern-slide camera, the film side of the slide being placed in contact with the ground side of the glass. This must be done carefully, to avoid scratches.

The cloud negative may then be placed in the holder and the clouds adjusted so as to cover the proper portion of the landscape slide. In doing this it must not be forgotten that the cloud slide is to be used as a cover-glass; and that when so used its position will be the reverse of that in the camera. If both the landscape and cloud negatives are lighted in the same direction, then the cloud negative must be turned the other way around, with its ground side towards the lens.

When these matters are decided and the image has been sharply focused the back of the camera must be racked in towards the lens the thickness of the lantern-plate. The landscape slide is now removed from the focusing-screen and its more transparent portions, except the sky, should be blocked out roughly with opaque applied to the glass side. It is then placed, film upwards, into the plate-holder, a fresh plate is laid on it, film downwards, and the exposure is made through the landscape plate, which acts as a mask.

Development of the cloud-plate should be the same time as for the landscape, and a fresh developer should be used for each plate, or else the colors are sure not to match. The longer the exposure the heavier will be the clouds, and the exposure must be calculated to give precisely the strength required in the time of development adopted. Alteration of the time of development or composition of the developer results in a different color and the clouds will no longer match the landscape.

If the landscape slide has not masked the cloud slide as effectively as it should, a few undesirable details which interfere with the effect may appear in the landscape portion after finishing and washing. Faint detail or slight overlapping does not

matter, but if objectionable, either may be removed almost instantly, while still wet, by applying the following solution liberally with a camel's-hair brush, rinsing the plate constantly to prevent the formation of hard lines. The solution should be colorless and cannot be used but once:

Water..... 2 drams
Potassium cyanidegrain the size of a pea
 Allow half hour to dissolve.
Tincture of iodine 1 dram

After this treatment the slide is washed again and dried, when it may be masked and bound. The two plates must be in exact contact and register, so that a paper mask should not be placed between them. A better way is to mask the landscape slide with India ink, drawing a line with a ruling-pen where the margin is to come and then widening this to an eighth of an inch. When this is dry put a spot of seccotine at each corner of the slide, lay the cloud slide on top and bring the skylines of both into register, then press them firmly into contact and put away for a day. Later glue a paper mask on the outside of the slide extending almost to the inner margin of the ruled lines and then bind in the usual way.

AUTOCHROME LANTERN-SLIDES

ABOUT the most practical way of viewing Autochromes is when projected on a stereopticon screen, yet the great density of the finished transparencies has deterred many from making any attempt in this direction. In a recent issue of the *Amateur Photographer and Photographic News*, Ernest Marriage suggests that this difficulty may, to a considerable extent, be avoided by omitting the intensification process usually practised. Intensification makes the colors more vivid, which some prefer when the plate is to be viewed in the hand by daylight, but it also increases the density to such an extent that it is objectionable in case projection is intended. If this course is pursued the plate is washed for a few moments after the second development and then dried.

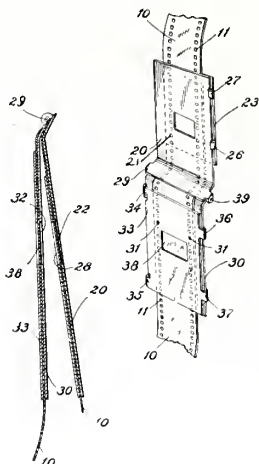
Photographers have been too hasty in assuming that Autochromes were too opaque for the lantern except with an exceedingly strong illuminant such as the electric arc, whereas limelight is suitable for a small picture. With such a means of illumination it should be possible to project a three-foot picture from a slide which has not been intensified. This is large enough for the home, and the omission of intensification will prove in more cases an improvement than a detriment. Color-contrast can be obtained without glaring color; the painter does not use it, nor need the photographer. For scientific work requiring accuracy of color-rendering such a course might not be wise, but in pictorial work the colors are such as the eye readily accepts as pleasing and sufficiently truthful.

Another suggestion is that, as most artificial lights for projection are deficient in blue rays, a blue screen be used on which to receive the image. Dis-tempers with such trade names as "sky blue" or "light blue" answer admirably.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.



February 23, 1909

913,326 DEVICE FOR REPAIRING MOVING-PICTURE FILMS. CHARLES R. UEBELMESSER, New York City.

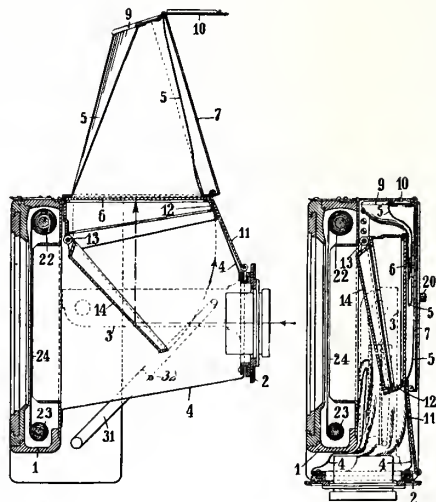
With this device the ends of a torn film may easily be held, prepared for joining and then pressed firmly together while the cement is hardening. It consists of two holding-members 20 and 30 hinged together at 29 and 39 and provided with projecting teeth 21 and 31, fitting into perforations 11 in the film, the latter being held in place by clamping-pieces 23 and 33 hinged to the sides of the holding-members and fastened by spring catches 26, 27, 36, 37. Each holding-member has an aperture, the size and shape of one picture on the film, which registers with a similar aperture in the clamping-piece. The films to be joined are clamped in place with one picture of each series in register with the aperture in its respective holder, the front face of one film being placed upon one holder and the back face of the other film upon the other holder. The device is now swung into open position (shown by the first sectional figure), causing the ends of the film to project slightly and permitting a bevel edge to be given to the ends of the film by means of a file or sandpaper, the bent and beveled ends of the holders serving as a guide. Cement is then applied to the edges and the device swung into closed position (second perspective view). The parts are so proportioned that the ends of the films are brought into juxtaposition by this operation and may be held together until the cement has become set and a smooth, strong joint results. Although one or more pictures of a series is lost in repairing, the fixed distance between pictures is still preserved, since there is a definite distance between the registering-apertures of the holder and the teeth 21 and 31, which hold the film in place.

913,328. REEL FOR MOVING-PICTURE MACHINES. CHARLES R. UEBELMESSER, New York City.

The device is of stamped sheet-metal much like those already in use, except that one flange can be removed by a partial revolution relative to the remainder of the reel, so that an entire film may be taken from it or replaced without unwinding.

913,353. FOLDABLE REFLEX CAMERA. ERNST BRAUBURGER, Friedenau, Germany. Assignor to Optische Anstalt C. P. Goerz. Aktiengesellschaft, Friedenau, Germany.

In reflex cameras which fold like books the objective-board is directly hinged to a camera-wall, the opposite end of which is hinged to the camera-back. This necessitates

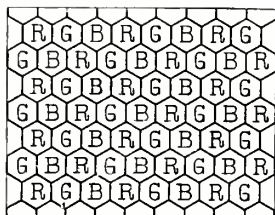
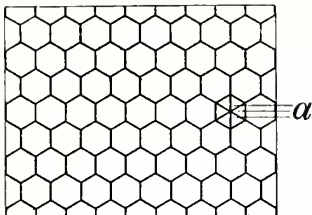


lenses of long focus; but by employing an intermediate hinged section 11 the focal capacity is greatly shortened. The cuts are longitudinal sections showing the camera in open and closed positions.

March 2, 1909

914,197. OPTICAL SCREEN FOR PHOTOGRAPHIC AND PRINTING-PURPOSES. JOHN HENRY SMITH, Zurich, Switzerland.

The screen consists of equal-sized equilateral, triangular elements *a* on a transparent base arranged to fit each other without intervening spaces or overlapping, and grouped together in hexagons of various colors, which may be grouped again. This arrangement of the triangles into hexagons and the circular grouping of these elements of higher order is of great importance for taking and viewing-screens in



three-color photography, as it permits the distribution of the primary colors absolutely evenly without linear structure.

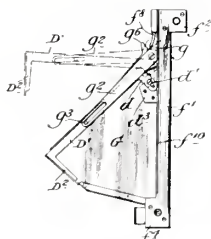
March 9, 1909

914,729. KINETOSCOPE. JEREMIAH KELLER, Canton, O.

A moving-picture machine to use standard film and provided with a motor to operate the mechanism after it has been started by a hand-crank. Its chief feature is a rotary shutter, located between the light and the film, consisting of a hollow cylinder having open and closed portions and pivoted blades located within, which close the open portions by spring tension when the cylinder is at rest (protecting the stationary film from intense heat) and open them by centrifugal motion when the cylinder rotates.

914,784. PHOTOGRAPHIC CAMERA. LOUIS BORSUM, Plainfield, N. J.

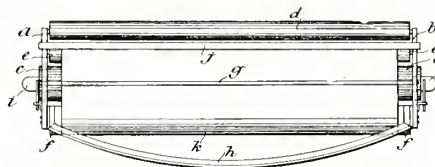
A camera of the reflecting-type much like those already in use, except for the reduced length of the camera-box. This is accomplished by providing the side-plates of the mirror-frame D' with rearwardly-projecting right-angle extensions



d pivoted at d^1 so that the front edge of the mirror moves rearwardly as it swings upward from its normal reflecting-position to trip the shutter. Another feature is a latch-plate which, when drawn, automatically opens the camera to full operative position.

915,044. PHOTOGRAPHIC PRINTING-APPARATUS. THOMAS THOMASSEN SABROE, Copenhagen, Denmark.

In machines for continuous photographic printing, illumination is supplied by mercury vapor-lamps within a revolving cylinder with transparent surfaces, around which the printing-material passes. As the lamps are lighted by alternately raising and lowering the ends of the lamp-tubes, it has hitherto been necessary to have a printing-cylinder of large diameter in order to allow sufficient room



for the tilting-movement. This requirement has placed a limit upon the nearness of the light to the printing-material, and has also required thick cylinder walls which permitted increased absorption of more refrangible light. Moreover, the movement of the lamps tended to break them. In this invention these difficulties are overcome by tilting the whole apparatus on a pair of rockers at the base, the exact means of actuation not being described in the specification.

March 16, 1909

915,126. DAYLIGHT-LOADING FILM-PACK. JOHN EDWARD THORNTON, Altringham, England.

The chief difference between this and other film-packs lies in the expanding division-pad $E F$, which separates the films A from the tabs a . In all previous-known forms of daylight-loading film-packs the unexposed films were pressed together by a single spring follower-plate, the springs being carried either by some portion of the case, or by an inner chamber placed within the case. Thus, although the space in the front section before the pressure-plate was constantly diminishing as the films were drawn over, the space in the back section was always of the same fixed size, the films lying more or less loosely therein. But with the double expanding spring-pad $E F$ the space behind increases and the space before decreases as the films are drawn over, the position of the two plates $E F$ of the double spring-pad continually shifting. As the space occupied by the bundle of backed films and bundle of tabs before use is greater than the space occupied by the single bundle of backed films after use, this difference is also taken up and compensated for by the further expansion of the pad.



The pad also serves not only to keep the films pressed closely together, so that the one in front is always in the focal plane, but also to close the case after the last film has been exposed. The rounded nose j ensures easy transition of the films from the front of the case to the back and prevents bending them over too narrow an edge. Friction-lines on the film may be avoided by the use of plush strips pasted in the case at points where the film is likely to draw against it

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions are solicited for publication



Internationale Photographische Ausstellung Dresden 1909

DRESDEN EXHIBITION

THIS spacious edifice has been found inadequate for the enormous demands made upon its floor and wall space, hence several extensive annexes have been erected. A feature of the exhibition will be a reading-room containing probably all the photographic magazines published in the world, and accessible to every visitor to the exhibition. We have heard already from quite a large number of workers planning to visit Dresden this summer. They will be the objects of envy to those very anxious to go but for various reasons unable to do so.

The American commissioner for professional photography, Mr. Pirie MacDonald, of New York City, has already selected nearly three hundred pictures which represent the work of eminent American professionals. The commissioner for amateur photography in this country, Mr. F. R. Fraprie, has been equally successful.

An interesting feature of the show will be a special room allotted exclusively to the pictorial work executed by royalty. Among the exhibitors are H. R. H. Frederick Augustus, as well as Prince Georg and Princess Mathilde of Saxony, Queen Wilhelmina of the Netherlands, the German Crown Prince and Crown Princess, Prince Wilhelm of Hohenzollern, Prince Karl of Hohenzollern, Duchess Karl Feodora of Bavaria, Princess Clara of Bavaria, Prince Albert of Monaco and Archduchess Feodora of Schleswig-Holstein.

MR. DÜHRKOOP'S HOSPITALITY

No one will dispute the statement that, among all the foreign photographers who have visited the United States, Rudolf Dührkoop, with studios at Hamburg and Berlin, holds the highest place in the affection and esteem of the American photographers—professionals and amateurs alike. His visit to this country on the occasion of the National Convention at St. Louis in 1904 is most pleasantly remembered by all who were so fortunate as to come within his genial, inspiring presence. He himself counts these days as among the happiest of his life, and he is anxious to perpetuate the friendships formed at that time. Hence he wishes us to state that he is sincerely desirous to welcome his American friends and colleagues, also any new faces from either the professional or amateur ranks, at his Berlin studio, No. 10 Unter den Linden. As soon as he knows when they are expected to arrive in Berlin, he will arrange to be on hand to greet them. He will pass his vacation near Dresden, so that he may also be found in that city, where he will do his best to give the Americans a hearty reception.

PHOTOGRAPHIC MATERIAL ABROAD

THOSE camerists who expect to pass considerable time, this summer, in Switzerland will be glad to know that fresh and reliable films and plates may be procured in all the principal cities of the Republic; viz., Geneva, Basel, Berne, Lucerne and Zürich.

HENRY BAUSCH

IN the death, March 2, 1900, at Augusta, Ga., of Henry Bausch, vice-president of the Bausch & Lomb Optical Co., that firm sustains a severe loss. Mr. Bausch was born fifty years ago, the third son of Mr. and Mrs. J. J. Bausch, and was a graduate of Cornell University. In 1875 he entered the Bausch & Lomb factory, beginning his career by working at the bench, so learning the business from the ground up. His special interest was in the microscopic and scientific department, to which branch of the business he devoted most of his life. He was prominently identified with the municipal, charitable and philanthropic affairs of his native city — Rochester, N. Y. In his daily vocation he exhibited notable industry and fidelity to duty and won the affection and esteem of his employees by his kindness and sense of justice. Resolutions of sympathy were adopted by the factory employees, and by the various organizations with which he was connected.

AN AWARD FOR LUMIÈRE

THE Progress Medal of the Royal Photographic Society of England, an annual institution since 1878, was this year awarded to Messrs. A. Lumière and his sons for the Autochrome process of color-photography and their chemical researches. The award is always granted for important advance in the scientific or artistic development of photography, and the number and variety of the subjects treated by these men have been so great that there could be no question of the propriety of the award.

THE CAMERA CLUB, NEW YORK

PERHAPS the most interesting of recent features at the new club-rooms was an exhibition of enlarged photographs of the Indians of the southwestern United States, their arts, ceremonies and habitat, by Frederick Monsen. On Saturday, March 27, Mr. Monsen gave an informal talk on the Navajo Indians and the land they live in, illustrated by stereopticon views in color.

PROFESSIONAL PHOTOGRAPHERS' CLUB OF NEW YORK

THE Third Annual Banquet of this live and progressive professional club was held at Atlantic Gardens, New York, on the evening of March 18, and was a most enjoyable and successful affair. About seventy members of the club sat down to an exceptionally good dinner. The guests of the evening were A. F. Bradley, E. B. Core, S. H. Lifshy, Pirie MacDonald, and J. L. Foley, of New York; E. Goldensky, of Philadelphia, and the editors of *Wilson's Photographic Magazine* and *Abel's Photographic Weekly*. Mr. J. C. Abel made a capital toastmaster. During the evening Mr. I. Buxbaum, on behalf of the club, presented W. B. Stage with a handsome silver coffee-service, as the club's appreciation of his good work on its behalf. A most enjoyable evening was spent by all present.

BOSTON CAMERA CLUB

A BETTER club spirit than has been evinced for several years past rendered the nineteenth annual exhibition of this organization a distinct success. Exactly one hundred prints were hung, representing thirty-three workers, and the average of pictorial merit was very encouraging. More "team work," including frequent informal meetings, comparison and criticism of each member's prints, would be of the utmost value to all, especially those not far advanced in pictorial art. Moreover, it would give unity to the club's effort as a whole and tend to create a club individuality. The competitive idea was again inaugurated with ribbons awarded as follows:

Portrait Class. First, Charles Peabody; second, Miss E. L. Pitman; third, R. W. Marshall.

Landscape Class. First, no award; second, F. R. Fraprie; third, C. B. Webster.

Marine Class. First, no award; second, Gurdon R. Fisher; third, no award.

Still Life. No awards.

Snow Scenes. First, Mrs. Margaret E. Menns; second, A. Murray; third, Phil M. Riley.

Animal Life. First, H. S. Adams; second, E. N. Boyd; third, Mrs. Margaret E. Menns.

Genre Pictures. First, R. W. Marshall; second, C. F. Clarke; third, W. H. Wing.

The judges were John J. Enneking, landscape painter; Wm. H. Downes, art-critic, and Wilfred A. French, editor of *PHOTO-ERA*. In making the awards they felt that, while the classes in portraiture, genre, animal-life and winter scenes were excellently represented, there were no pictures in the landscape and marine classes of more than ordinary merit, hence, no first prizes were awarded in these two classes. They also were agreed that were a grand prize to be awarded it ought to go to R. W. Marshall for his powerful genre study of "Joan of Arc."

AMHERST EXHIBITION

THE annual exhibition of photographs, which is a regular feature of the study of landscape-gardening under Prof. F. A. Waugh at the Massachusetts Agricultural College, Amherst, Mass., was held from March 15 to 20. Eighty-five prints were shown by prominent pictorialists, such as Davis, Knox, Zerbe, Clarke, Vanderfelde, McFarland, Hall and others. The idea of this annual event is to provide photographs of outdoor scenes for the students to study with reference to their application in landscape-gardening of the new order, which strives to beautify nature yet avoid the artificial.

G. R. BALLANCE

MR. BALLANCE, of St. Moritz-Dorf, Switzerland, whose artistic views of Swiss Alpine scenery enjoy a world-wide reputation, passed last autumn among the Dolomites in the Austrian Tyrol, photographing successfully those strange-looking mountain-peaks. He has just completed a catalog of his Dolomite scenes and will mail it to any one interested.

JAMESTOWN CAMERA CLUB

THE Second Annual Exhibition of the Jamestown (N. Y.) Camera Club was held March 1, 2 and 3. In addition to the collection of members' work, there were two unique features which created considerable interest. A special competition was provided for amateurs in Jamestown and vicinity, not members of any camera club. A silver loving-cup and six certificates of honorable mention were awarded, the cup going to Benjamin Rushworth. Of still greater interest, however, was the special competition, open only to outside camera clubs, in which a silver loving-cup was awarded for the best group of pictures submitted by any club. This award went to the Grand Rapids Camera Club for a notable collection of prints, several of which have already been reproduced in PHOTO-ERA. The Wyoming Valley Camera Club received honorable mention. Special honorable mention was awarded for "The Dancer," by Charles I. Berg, and "Morning Solitude," by George C. Elmberger. The latter was reproduced in PHOTO-ERA, November, 1907.

The members' exhibit was of a very high order, and awards in the respective classes went to J. M. Cushman, A. L. Eskstrom, Charles Moore, M. C. Nichols and C. E. Craven.

PHOTOGRAPHIC CLUB OF BALTIMORE

THE Fourth Annual Prize-Contest of the Photographic Club of Baltimore City was held on March 16, and about one hundred prints were in competition. These were most favorably commented upon by the three judges, not members of the club, as being the finest showing the club has ever made. Guests invited to inspect were loud in their praise, and every one conceded it a fine exhibition of prints, and one that showed decided improvement over any previous contest.

Honors were bestowed upon Harry D. Williar, the first president, and organizer of the club, to the extent of a medal in each class; viz., gold, silver and bronze. The other recipients were: Dwight F. Boyden and Robert L. Harris, each a gold medal; Prof. Jas. Lock, a silver, and Chas. H. Rennish, a bronze medal.

P. A. OF N. E.

PLANS are already in progress for the convention of this association to be held August 3, 4 and 5, 1909. In order to bring together an exhibition of high-grade photographs, the following prizes and classes have been arranged for:

Grand Portrait Class. Open to the world; one picture only, 8 x 10 or larger. No entry-fee. Prize, Solid Gold Medal.

The remaining classes are for P. A. of N. E. members only:

Portrait Class. Three pictures, any size. Three prizes, a Silver Medal and two Certificates of Merit.

Genre Class. Three pictures, any size. Three prizes, a Silver Medal and two Certificates of Merit.

Group Class. Three or more figures in the group. Three pictures, any size. Two prizes, a Silver Medal and Certificate of Merit.

Landscape Class. Three pictures, any size. Two prizes, a Silver Medal and Certificate of Merit.

Three pictures must be sent to be entered in any class, except the Grand Portrait Class; over that number will be hung only at the discretion of the Hanging-Committee.

INDIANA CONVENTION

THE Annual Convention of the Indiana Association of Photographers will be held at the Daguerre Memorial Institute, Winona Lake, Ind., July 5-9, 1909. A very interesting and instructive program has been prepared, including the aid of "Daddy" W. S. Lively, who will conduct classes in portraiture. Other tempting features are a Diamond Medal of Honor, an Artura Trophy and a Haloid Trophy. For full particulars send a postal to Secretary E. K. Shalley, Berne, Ind.

BOOK REVIEWS

ENCYCLOPÆDIA OF PHOTOGRAPHY. Brochures.

Wilhelm Knapp, Halle, Germany.

These notable, exhaustive monographs written or edited by recognized authorities are published periodically by Wilhelm Knapp, and constitute a valuable encyclopædia of photography. Among the recent numbers are the following:

No. 8, "Die Microphotographie" (second, revised edition), by R. Neuhauss, M.D. Illustrated. Price, 25 cents. The author has made the study and practice of micro-photography a specialty, and his treatise on the subject may, therefore, be accepted as authoritative. The work is divided into twelve chapters, as follows: "The Apparatus;" "Objectives and Oculars;" "The Source of Light;" "The Illumination;" "Exposures with Ultra-Violet Light;" "Instantaneous Exposures;" "Exposures with Polarized Light;" "Stereoscopic Exposures;" "Stereoscopic Exposures;" "The Negative Picture;" "The Positive Picture," and "Subjects to Be Photographed."

No. 10, Die Stereoscopie und das Stereoscop in Theorie und Praxis (second, enlarged edition), by Prof. Dr. F. Stolze. Fully illustrated. Price, \$1.25. With the active revival of this most interesting branch of photography, especially in France and Germany, it is hoped that workers in this country will fully appreciate the keen enjoyment afforded by well-executed stereoscopic views. For sheer realism they surpass even the more modern moving-pictures, and the absence of motion is not regretted. Besides, the many serious objections, of a technical character, which threaten the popularity of the motion-pictures do not attend the contemplation of properly-made stereoscopic views. The latter may be made either on paper or on glass, and those who are willing to study the methods of their preparation will surely engage in their production, and this with an earnestness that they

had not anticipated. To this end they will find Dr. Stolze's work on the theory and practice of this fascinating subject a most helpful aid.

No. 27, *Die Diapositivverfahren* (second edition), by G. Mercator. Price, 50 cents. This number is devoted to the preparation of transparencies for window-decoration, the stereoscope and the stereopticon (magic lantern), according to old, modern and up-to-date printing-methods. In view of the frequent exhibition, notably in scientific and educational institutions, of very mediocre — hastily-prepared — lantern-slides, it is desirable to invite attention to the ease with which these indispensable means of illustration can be made, and Mercator's monograph shows the way to their successful preparation.

No. 50, *Dreifarbenphotographie nach der Natur* (second edition), by Dr. A. Miethe. Illustrated. Price, 60 cents. In this work the author treats three-color photography from nature with a precision, clearness and authority which characterize all his writings. He describes the methods employed at the photographic laboratory of the Technical High-School of Berlin, and, as he himself is one of the greatest living authorities on all technical and scientific matters pertaining to photography, his views, whether expressed orally or in print, are always highly prized. The science of photography in natural colors, however, has called forth his finest gifts as an investigator and experimenter, and in this field he has rendered service the value of which has been acknowledged universally. His present contribution will be read with interest by all color-photographers.

No. 59, *Das Kopieren bei elektrischem Licht*, by Arthur Freiherrn von Hübl. Copiously illustrated. Price, 45 cents. Any reproducing-plant that desires to respond to present-day requirements will find daylight as an exclusive source of illumination entirely inadequate. With its use failures and interruptions are unavoidable, and in certain localities there often are periods during which its actinic force is seriously affected, if not entirely destroyed. For this reason artificial light must be resorted to. Therefore, the choice and application of light best adapted to the work in hand is of vital consequence. This important subject is treated with practical understanding of the latest and most approved illuminating-apparatus, including the electric arc-light, the mercury-vapor lamp, etc. Photo-engravers, particularly, will find Hübl's monograph of immense benefit in their work.

No. 60, *Die Theorie und Praxis der Farbenphotographie mit Autochromplatten*, by Arthur Freiherrn von Hübl. Price, 50 cents. While the maker's directions for manipulating autochrome plates are explicit and, if faithfully followed, lead to success, mistakes may be frequently avoided by the practitioner who possesses a theoretical knowledge of the process. This information is conveyed in the above-mentioned monograph by Herrn Hübl, one of the most versatile and well-equipped photographic writers of the present day. In addition, the brochure treats on the practice of the Autochrome process,

and also gives a number of formulas and practical hints — the result of successful experiments by the author.

GUIDE TO LANDSCAPE PHOTOGRAPHY, by Fritz Loescher. Third revised edition. 30 explanatory illustrations by the author. Price, paper covers, \$1.00. Gustav Schmidt, Berlin, Germany.

Loescher's "Guide to Landscape Photography" clearly shows the way to artistic and technical success. Valuable, also, is the author's advice on all technical matters, particularly equipment, materials, work on negatives, printing-mediums, etc. The author explains how many an admirable negative fails to make an effect owing to an inadequate printing-method, indifferent trimming of the print, etc. The work commends itself to every landscape-photographer, more especially to our readers familiar with the German language.

THE GRAPHIC ARTS YEAR-BOOK FOR 1909 — the American Annual Review of the Engraving, Printing and Allied Industries. Edited by Joseph Meadon. 426 pages, 8 x 10 inches. Gilt top, heavy leather binding, sumptuously illustrated. Price, \$5.00, express paid. The Republican Publishing Company, Hamilton, Ohio.

This important and magnificent work is to the engraver and printer what the photographic annual is to the pictorialist and the technician in photography, only necessarily a more expensive publication. The volume describes, in their latest improved stages, photo-mechanical processes of printing in color and monochrome, together with high-class examples of an attractive character. These illustrations represent the high artistic and technical skill of native firms distinguished in the arts of color-printing, photo-gravure, photo-engraving and kindred industries. The numerous articles on the various reproductive processes are written by experts, recognized, universally, as authorities in their profession, and are illuminating in the highest degree. There are, also, valuable essays on "Lettering and Typography for Printers" and "Commercial Illustrating" — all suitably illustrated. Chief among the miscellaneous articles are "The Vellucent Process;" "A New Method of Decoration for Bound Books;" "Wood Engraving of Today;" "The Triumphs of Modern Lithography;" "Technical Education," and "The Development of American Art." The letter-press concludes with an itemized list of the leading publications in the world devoted to the graphic arts and the reproductive section thereof, preceded by full-page photographs of their editors.

To every true man who desires to be well versed in the technicalities of the craft and to possess and exercise good taste, interfusing higher knowledge with skill, the *Graphic Arts Year-Book* is preëminently a helpful medium. As the editor truly says, "There is, in this country, a surplus of tinkerers and a dearth of thinkers."

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: GEORGE W. STEVENS, Toledo Museum of Art, Toledo, O.

Vice-President: JOHN F. JONES, 934 Ash St., Toledo, O.

Secretary: C. C. TAYLOR, 3236 Cambridge Ave., Toledo, O.

Treasurer: GEORGE W. BEATTY, 1629 Nicholas Bldg., Toledo, O.

Historian: WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

THE Sixth Annual Meeting of this organization was held at the rooms of the Chicago Camera Club March 13. The report of the treasurer was as follows:

Received from retiring treasurer	....	\$9.36
Dues	.....	325.00
Advertising	.....	290.00
		<hr/> \$624.36
Disbursements	.....	\$620.37
Cash on hand	.....	3.99
		<hr/> \$624.36
Now due from various clubs	.....	\$232.50
Present indebtedness	.....	203.00
		<hr/> \$29.50
Balance	.....	\$29.50

Two important measures were adopted: one, "that no catalogs be furnished free to members in the future, except that such members as purchase three hundred or more be furnished free, at cost to the Federation, a number equal to their total purchase;" the other, "that for future Salons an entrant may submit as many prints as he may choose, but not more than six prints from any one exhibitor may be accepted." The board expressed the sentiment that fewer prints be accepted for the Salon than in the past, and that the standard be raised to the best submitted.

At this meeting President Tuckerman and Vice-President Weeks tendered their resignations on account of personal business reasons. In consequence of this, Secretary Hale and Treasurer Elmberger also resigned, in order to leave the board free to elect new officers from the same locality. The resignations were accepted with regret, and a vote of thanks was extended to the retiring officers for their efficient services. As these men had been elected for two years, a new board, given in the heading above, was elected to fill out their unexpired terms.

This takes the Federation headquarters to Toledo, O., and suitable space has been allotted for its use in the Toledo Museum of Art.

In George W. Stevens the Federation has a man who is preëminently suited to the position of president, because of his rare executive ability. He is a born artist, a fine newspaper man,

and the fruits of his labors have been of a most substantial nature. As Director of the Toledo Museum of Art his work has been most successful. Under his administration the museum grew from a small nucleus to a valuable collection of paintings, statuary, antiques, etc., which is soon to find a home in the new \$200,000 building to be completed this year.



GEORGE W. STEVENS
PRESIDENT OF THE FEDERATION

Mr. Stevens is a man of wide acquaintance among artists here and abroad, where he has traveled extensively; and he has become intensely interested in photography and imbued with the desire to have it universally recognized as is its right. If pictorialists will give him their hearty support and submit their best work, succeeding Salons will be far in advance of those in the past and the standard will be raised so high that to have a print accepted will be no hollow honor.

Mr. John F. Jones, the vice-president, is a man of artistic temperament, a good photographer and a hard worker.

The new secretary, Mr. C. C. Taylor, is the man for the place. He believes in publicity of the Salon, and that interest in its welfare on the part of contributors and supporters is better gained and held by the secretary coming in closer touch with them. Also, he believes that prompt answers to all correspondence are imperative, and is so situated that he is able to answer without delay all letters received.

The new treasurer, Mr. George W. Beatty, is a business man of excellent repute, sterling worth and able to give the financial end all the time necessary.

WITH THE TRADE

KODAK COMPETITION

THE success of the 1908 Kodak Advertising-Competition is set forth in a beautifully-printed brochure, reproducing the prize-winning and other interesting prints. There are a limited number of copies left, and as long as they last those of our readers who are interested may have them for the mere asking. The Eastman Kodak Company has done much to encourage and raise the standard of photography in advertising, particularly along art lines. It has taken the lead, so to speak, and has shown photographers the sort of pictures required. We hope that this may result in encouraging more PHOTO-ERA contributors to enter this field, for we feel confident that many of them have adopted a style combining art and popular attractiveness which would make for success. There will be another Kodak competition for 1909, with prizes decidedly worth winning.

Prizes for 1908 were awarded as follows:

CLASS A

- First, \$500. H. E. Lawson, New York City.
 Second, \$250. F. and C. A. Maynard, Philadelphia.
 Third, \$125. George L. Gilbert, Burlington, Ia.
 Fourth, \$75. Miss Gertrude Cockroft, Alameda, Cal.
 Fifth, \$50. Rudolf Eickemeyer, New York.

CLASS B

- First, \$300. Mrs. W. W. Pearce, Waukegan, Ill.
 Second, \$150. R. P. De Vault, Battle Creek, Mich.

AN INEXPENSIVE TOUR

MUCH surprise has been expressed at the low cost of the camera tour to Europe advertised by the Boston Travel Society. The reason is simple enough. Palatial and expensive steamers, hotels, and railway travel have been cut out, and substituted by medium-priced ones, but, in every way, equally satisfactory. Indeed, more comfort and, also, a saving of 50 per cent, is thus ensured to the tourist. This should appeal to every worker, be he amateur or professional.

HIGH-CLASS PHOTO-FINISHING

AT last Boston has a photo-finishing establishment which is, in every way, first-class! It is because experienced and trustworthy experts do the work, and only the best materials — chemicals, paper, paste, etc. — are employed. Expense is not considered, and each customer receives a square deal. Mail-orders receive prompt and careful attention. This promises to be a gold-mine for the proprietors — A. E. Covelle & Co., 350 Boylston St., Boston, Mass.

HOLLAND AND BELGIUM

THE monthly passenger bulletin issued by the Holland-America Line reprints, with complete series of illustrations, an article on Holland and Belgium by Wilfred A. French, and published several years ago in PHOTO-ERA. Any one interested may have a copy gratis by sending a postal, mentioning PHOTO-ERA, to the Passenger Department, Holland-America Line, 39 Broadway, New York City.

PAPER TO SENSITIZE

THOSE pictorialists who prefer to sensitize their own papers will find it difficult if not impossible to equal the superb quality of Strathmore Water-Color Paper. It is absolutely pure, containing no chemicals of any nature, and is so heavily sized in the manufacture that when sensitizing for kallitype, gum-bichromate or plain paper printing it is unnecessary to size it before applying the emulsion, as is usually the case. This paper is also admirably adapted to use as a final support for carbon or ozobrome tissues. It is carried in sheets 22 x 31, light or heavy weight, and rough or smooth surface. Light weight, \$2.50 a quire; heavy, \$4.75. Sample on request to the Mittineague Paper Company, Mittineague, Mass.

ARTURA BRANCH IN BOSTON

NEW ENGLAND users of this popular paper will be pleased to know that a branch office of the Artura Photo-Paper Company has been opened at 406 and 407 Washington Building, Boston, under the able management of Mr. E. A. Moore, formerly with Pinkham and Smith Company. A fresh and complete stock of Artura goods will be kept on hand, and patrons are assured of prompt and courteous service.

RELIABLE FIELD-GLASSES

PHOTO-ERA has more than once commented upon the amount of ignorance regarding opera and field-glasses which exists both among the dealers and the purchasing public. The latter frequently pays as much for poor glasses as for good ones. It should buy them only of a reliable optician and one who handles superior goods, exclusively. Such a firm is E. B. Meyrowitz, 104 East 23d Street, New York City.

FOR BARGAIN-HUNTERS

WILLOUGHBY'S Spring Bargain-List No. 110 is now ready for distribution. It is filled with offerings in Graflex and Reflex cameras, Kodaks, Zeiss Tessars and other anastigmat lenses and will surely prove welcome to all shrewd bargain-hunters in things photographic. For a copy send to Willoughby, 814 Broadway, New York.

GET THE TWIN BOOKS

NOT a reader of this magazine should fail to send for "The Twin Books of Photography," advertised by Ansco Company last month. These beautifully-printed little booklets, sent gratis, constitute a valuable acquisition to any photographic library, and the information is so concise that both may conveniently be carried in the pocket. "The Positive of Photography" deals exhaustively with Cyko, although the information is equally applicable to all developing-papers of Cyko quality; while "The Negative of Photography" tells in simple words all that the amateur needs to know, from the loading of the camera to the finished negative.

CORRECT EXPOSURE EASY

"STEADMAN'S Complete Exposure-Method and Home Portrait Helps," together with the "Aaba Exposure-Scale," at an expense of only seventy-five cents, supply every camerist with a valuable pocket guide to successful photography as reached through correct exposure. Coming from such an authority as F. M. Steadman, Seabreeze, Fla., well known for his system of Solio timing, these aids to better picture-making merit the consideration of every serious worker. The scale is of celluloid, convenient to handle.

THE COMPOUND SHUTTER

THIS new, compact inter-lens shutter for hand-cameras is an important ally of the high-speed lens, since it works with reasonable accuracy at speeds from one second to $\frac{1}{2500}$ second. Moreover, the mechanism is durable, so that it will not easily get out of order, and, being constructed of aluminum and steel finished in black, is light in weight. An iris diaphragm is provided, and steel segments form the shutter-leaves of the star-shaped opening, which gives even illumination to the margin of the plate from the moment the exposure is started. A locking-device prevents the shutter from working in any way other than that desired. Send to Bausch & Lomb Optical Company, Rochester, N. Y., for complete details.

A BEAUTIFUL PUBLICATION

THE *Aristo Eagle*, with which nearly every professional photographer in the country is familiar, was always a neat, lively and tastefully-printed publication, with illustrations that were technically excellent but, in our judgment, too snappy, too brilliant. This objection is entirely absent in a series of superb portraits by the Kandler Brothers, of St. Louis, which adorn the initial issue of the new monthly — *Studio Light* and the *Aristo Eagle*, published by the Eastman Kodak Company, Rochester, N. Y. What ability, taste and enterprise can combine to make a publication decidedly the foremost of its class in existence is here brilliantly exemplified. The typography, the illustrations, the stock, the general appearance — all are of the highest quality, and merit unstinted praise. The articles, while, naturally, a little biased in favor of the publishers,

are helpful to any practitioner, regardless of the make of goods he uses. "Studio Advertising," for instance, should be read by every professional photographer who, though capable, industrious and reliable, lacks the qualities that make for success. A copy of *Studio Light* and the *Aristo Eagle* will be mailed gratis to any one interested.

AMERICA'S SWITZERLAND

FOR those who will not journey to Dresden this year — lacking, presumably, the where-withal — there are compensations. As attractive camera-subjects America presents its Switzerland — the White Mountains of New Hampshire, the garden-spot of the East. Pictures made there this summer will have not only a pictorial, but a pecuniary value. They may be entered in several important prize-contests later on. Cash-prizes will be offered for "Vacation-Pictures" made in New England by magazines and the daily press, including PHOTO-ERA and *The Boston Herald*, also B. F. Keith (the theatrical magnate) and others. Stay-at-homes should send at once for booklet on Vacation-Resorts to Desk 65, Passenger Department, Boston and Maine R. R., Boston, U. S. A.

A PRIZE-WINNING PAPER

RALPH HARRIS & Co., 26 Bromfield St., Boston, Mass., are jubilant because six of the fifteen prizes awarded in the competitive exhibition held by the Boston Camera Club last March were printed on the Wellington Photographic Papers, for which they are the sole American agents.

VOIGTLÄNDER CAMERAS

THE progress of photography as a fine art has led to higher requirements in the apparatus and preference given to lenses which correspond in focal length to the visual distance of the human eye. With ordinary cameras one usually finds difficulty in using long-focus lenses and, because of their limited depth, frequently miscalculates distances, thus causing an out-of-focus picture.



Moreover, the finders of such instruments are inadequate, since they embrace a wider angle of view than the lens. These points make cameras of different construction desirable, and the Voigtlander Heliar Reflex Camera, made in five sizes, including a stereo, seems to fill the requirements. Seen here in closed position, the camera is also shown opened ready for use, in an advertisement on another page. More particulars are contained in Catalog No. 203.

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JUNE
1909

PHOTO-ERA

VOL. XXII
NO. 6

The American Journal of Photography

Official Organ of the American Federation of Photographic Societies

PUBLISHED MONTHLY BY WILFRED A. FRENCH, 383 BOYLSTON STREET, BOSTON, U. S. A.
Entered as Second-Class Matter, June 30, 1908, at the Post-Office, Boston, under the act of March 3, 1879

YEARLY SUBSCRIPTION - RATES

United States and Mexico, \$1.50. Canadian postage, 35 | Foreign, \$2.25. Single copies, 20 cents each. *Always payable in advance*
cents extra. Single copies, 15 cents each

ADVERTISING-RATES ON APPLICATION

WILFRED A. FRENCH, Ph.D., Editor

Associate Editors, PHIL M. RILEY, ELIZABETH FLINT WADE

Contributions relating to photography in any and all of its branches are solicited and will receive our careful consideration. While not accepting responsibility for unrequested manuscripts, we will endeavor to return them if not available, provided return postage is enclosed.

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Lilac Decoration by Mrs. J. C. Sheridan*



FURLEY LEWIS, F. R. P. S.
PORTRAIT OF RUDOLF DÜHRKOOP



PHOTO - ERA

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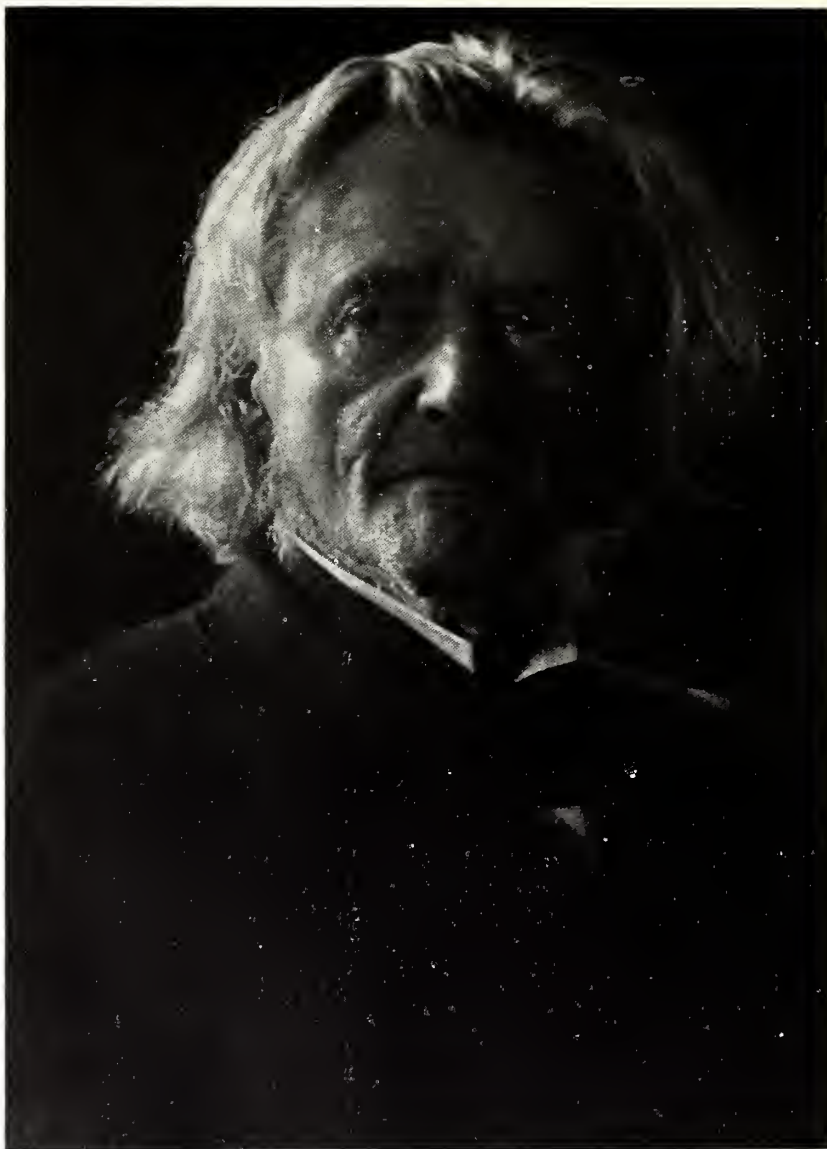
Rudolf Dührkoop

E. O. HOPPÉ, F. R. P. S.

THE career of Dührkoop illustrates once again the triumph of mind and will over adverse circumstances, for fortune by no means played the fairy godmother to him. He was born sixty years ago, at Hamburg, of parents in the middle-class of life; and in the now far-distant days when he first saw the light, not only was photography ranked low as an art, but among his people art, generally, was looked upon with indifference, contempt or even antagonism, as a useless (or still more a sinful) superfluity, and certainly unprofitable as a "bread-earning" calling. His progress is all the more remarkable from this fact, which should be kept prominently in view.

After an uneventful youth he became a soldier and passed through the stirring times of the Franco-German War of 1870-71. Returning to civil life, up to his thirty-fourth year he was a retail tradesman, and it was during the last few years of this calling that he took up photography as an amateur. By a lucky turn in the wheel of fortune (though perhaps it might not have seemed to him so then) he was enabled to relinquish the counter for the camera.

He had had up to that time no professional training whatever, nor had he worked in any studio, starting on his career only from what he had learned in books and from his own experiments. But this self-education was, after all, the best education, for I unhesitatingly ascribe it to this reason that he has kept his own individuality with such strength and freshness. For a little, however, his feet were set in the miry ways of the conventional pot-boiling likeness-taker, with the traditional head-rest and painted background, and there are dim, half mythological stories of his supplying the soldiers — his clients — with miniature copies of themselves at so much per dozen for presentation to those damsels with whom they "walked out," the uniform being considered as of more importance even than the likeness itself. His customers, civil and military, however, were all startled one day, when they beheld, instead of the smirking resemblances of themselves in the showcase outside the studio, a notice signed by Dührkoop, announcing that henceforth his portraits would be taken in a different style and by a different method, as his former work was entirely wrong.



R. DÜHRKOOP

DR. VON NEUMAYER

With characteristic originality and a Luther-like courage, he had nailed his articles of belief to the door, for all men to see. It has ever been his constant maxim since that "you have to advertise yourself if you want people to know what you can do." I would like to mention here that the one fact about Dührkoop which stands out prominently above the rest is that he is the pioneer of artistic

*Penna. State Library,
Harrisburg, Pa.
Not to be Taken from
the Library,*



R. DÜHRKOOP

A REMINISCENCE

portrait-photography on the Continent, having raised it from the mechanical commonplace level it was formerly in.

For the first two or three years he received little or no encouragement. During this time, and for some years subsequently, he visited exhibitions and attended art-lectures. He got into touch with and was influenced by Lichtwark, the well-known art-critic, whose lectures he attended. With the intuition of genius he recognized at the outset that his guides in the difficult path of pictorial expression must be the great masters of painting, and there is no doubt that they have greatly influenced his artistic development. They taught him the extreme importance of the study of composition — of the careful placing and balance

of lines and masses. From their study also he derived one of his chief characteristics — effective and beautiful light and shade; for with all the joy of a true artist he delights in beautiful harmonies of chiaroscuro. But, above all, they taught him the inestimable value of the personal vision in art, and that an artist, if he wishes to do really valuable work and to progress, must be true to his own impressions.

So, flinging off the worn-out garments of conventionality and tradition, he stood a free man — free to study and interpret nature with his own eyes and brain. Thus, to-day he works by no fixed rules or precepts, unconventionality of treatment being one of his most distinctive attributes. For instance, due partly to the influence of Herrn Lichtwark's lectures, he was led to abandon the taking of portraits in the usual photographic studio and to take them in an ordinary room. So he went to his sitter's houses, or took them in the open air. Up to that date, too, figures when taken in the open, with a landscape, had been but an accessory, the landscape being the dominant feature; now he reversed this, making the figures predominant and using the landscape simply as a background. In these two original ways his first triumphs were made. Instead of using papers with a high gloss he printed only on matt surface papers. But his artistic instinct prevented him from falling into the extremes of eccentricity on the one hand, or that coldly correct photography which expresses no emotion and is one of the signs of the non-artistic temperament, on the other. For all true art is fundamentally a matter of feeling, and, given a certain power of expression, the man who feels will always do better work than the man who remains cold and unmoved. And it will easily be seen that the secret of Dührkoop's versatility lies in the fact that his aim is to express to others the delight that he himself takes in the particular beauty or character of each sitter.

When he exhibited for the first time, in 1899, at Hamburg, he received the gold medal, the highest distinction. In the course of a few months medals and distinctions of all kinds poured in upon him. His success was no doubt in great measure due to the personal note. His charm of manner and conversation are such that he can entertain a roomful of people for hours; he brims over with youthful energy and spiritual vitality, and his admiration of the fair sex, expressed in terms that would in any other man seem dangerously bordering on extravagance and absurdity, ensures their good-will and sometimes invaluable coöperation. On an exhibition of his work being opened, he delivers a lecture about himself and his methods, often traveling hundreds of miles to do so. In these lectures the ordinary or "glass-house" photographer, with his cut-and-dried methods, comes in for some trenchant criticism; and, to make use of a vulgar but expressive term, "he rubs it into them" with no sparing hand, accusing them of artificiality and, most hideous crime of all, the use of the painted background.

In 1900 he was officially sent by the city of Hamburg to the International Exhibition at Paris, but on his return he confessed himself disappointed. In 1901 he visited London for the first time, where he saw the work of our leading amateur, by which he was influenced so far as tone-values and pictorial compo-

sition were concerned. In 1904 he was sent again by the city of Hamburg to the St. Louis Exposition. While in America he visited the studios of such leading American photographers as Pirie McDonald, Mrs. Käsebier, Julius Strauss and others. This journey proved very beneficial in developing his reputation and popularity among photographers there, one result of which was his election to honorary membership in the Photographers' Association of America. In 1903 he exhibited at Leeds for the first time.

I will now touch briefly on his methods of work. He has two studios — one in Hamburg and the other in Berlin — alternately superintended by himself and his daughter, a lady who has inherited very much of her father's gifts, and who is his chief and most skilful assistant; and one can oftentimes trace her influence in the prints made in Dührkoop's ateliers. Both his studios, unlike those of most photographers, are really nothing more nor less than two magnificently decorated and furnished rooms, of large proportions and with an ordinary window-light, but very high up. There is none of the usual photographic accessories, not even a camera — Dührkoop and Frau Doiez, his daughter, receive their clients in one of the rooms as they would an ordinary visitor, and Dührkoop at once engages in an animated conversation with prospective sitters. Well dressed, bright, alert, with all the freshness of perennial youth, he discusses his interesting subjects, and at a certain signal from him one of his many assistants comes from an antechamber with a field-camera on an ordinary tripod, and places it in position. Then, with all the fine craft of a finished man-catcher, when Dührkoop, by his fascinating manner and genial fire of neatly-placed compliments, has got the sitter off his guard and the transcendent moment arrives when he shows himself at his very best, Dührkoop suddenly steps back, and before the victim can again dissemble, the exposure (and an exposure it often is in both senses) is made. He never makes less than eight exposures, one after the other, in different positions. This his critics might regard as a sign of weakness, but he rightly says the sitter's individuality is not exhausted in one photograph only. He delivers his prints in various processes, one being printed in platinum, another in sepia, another in carbon, and so on. He also makes a great point of the mounting of his prints, because he says that the mounting is the *toilette* of a photograph.

When fifty-three years of age he started to learn photogravure, going as a pupil to the technical school to master that art. He then established a special photogravure-printing department at his Hamburg studio, and proceeded to publish three large folios of prints from photographs taken by himself. One folio was devoted to "Hamburg's Prominent Men and Women of the Twentieth Century;" the second he entitled "Men of Mark," and the third comprised the members of the Royal College of Science, Berlin. Although he has no objection to travel hundreds of miles to lecture before an art society on photographic matters, he refuses to act as a judge, his excuse being that one man should not judge the work of hundreds of others; and he has done this only three times in his life, under circumstances he could not avoid. His interest in schools of pho-

tography is very great, and he gives them all possible help. His own assistants, of which he has about twenty, he draws from among the best pupils of that school in which he is most interested.

Having said this much about the man and his methods, I should like to call attention to a few characteristic examples of his work, which display in the most salient manner those qualities for which he has become famous. As I mentioned before, he has raised portrait-photography from the mechanical commonplace level to a higher artistic one, and I can hardly choose a more powerful example than his portrait of Dr. Neumayer to illustrate this statement. It will be seen here how Dührkoop uses light and shade to bring out with startling force the fine character of his sitter and the dignity and beauty of old age — a result which he gained only by much labor and experiment. The print, too, has all the depth and delightful mystery of a head of some Jewish rabbi by Rembrandt — a quality in nature which this painter was the first to express with fidelity and fulness. Amateurs and professionals alike too often forget that art is the expression not of things as *they are*, but of things as *they appear*; and the outlines — to use a convenient convention — of surfaces are being continually lost or merged into other surfaces. But the knowledge that the artist has of the actual shape of the object hinders him from seeing it as it really appears, until long practice enables him to gain the necessary freshness of vision. It was some centuries, indeed, before artists realized this quality in nature at all — even nature-painters like Botticelli or Raphael failed to grasp it. But in art it is an additional source of power; for besides being true to nature, it arouses our curiosity and stimulates our imagination. And this Dührkoop knows very well.

As a contrast to the foregoing, I would like to draw your attention to another head by Dührkoop, entitled "A Reminiscence," as attesting his versatility and again his wonderful mastery of light and shade; but here it is not used to bring out character, but to express poetry — the poetry of sorrow — and human emotion. The few faint streaks of light in the background, put in with all the restraint of a true artist, add immensely to the suggestion of sadness. Mystery is again used with telling effect, and the general breadth and suppression of unimportant detail increase the sense of solemnity and gloom. But this is a rare mood in his art, and a still rarer one in his life; for he says his soul is getting younger and more beautiful every day, and he has all the spontaneous gaiety and irresponsibility of a schoolboy. To bring his body, which is unfortunately growing older, into harmony with his soul, which is growing more juvenile, he resorts to every sort of exercise, such as Sandow-developers, facial gymnastics, and even rolling on the floor. At a certain studio where he saw a portrait of a lady friend of mine who is a world-famed dancer, he became so enraptured at the sight of her that he commenced the Salome dance, imitating the movements of her face and hands so perfectly that only the characteristic costume was lacking to complete the illusion.

But returning to our examples of his work, the picture of a mother fondling her child illustrates Dührkoop's power in seizing subtle expression and express-



R. DUHRKOOP

"WHAT WILL HE SAY?"



R. DÜHRKOOP

MOTHERLY LOVE

ive action — a phase of his art in which he has gained many of his chief victories, and in which he possesses an acuteness of artistic vision sometimes amounting to inspiration. Exactly the right moment has been seized — the slightly petulant expression of the infant being well contrasted with the soothing expression on the face of the mother. A pictorialist has only one brief moment to tell his story, and how much depends on his choice in selecting the most vital things to say in it! This print may also be recommended for study because of the composition of the light and shade. Unlike the first two, it will be noticed that the masses of highest light are not on the faces, but on the garments — an effective arrangement, of which the old masters frequently made use.

In the field of domestic scenes, or “genre,” as it has been called, Dührkoop has also won success. It is rarely found that the photographer or portrait-painter becomes at the same time the exponent of domestic scenes, although many of the great painters enlivened these works by introducing episodes from every-day life. Men of the calibre of Terburg or Metsu, however, have shown us what pictorial beauties can be evolved from the kitchen or the parlor. Owing to the technical limitations of photography in the higher walks, this class of subject is particularly suited to it, and the domestic scene here presented shows how much can be done in this branch by photography. By that gift of the true



R. DÜHRKOOP

THE DREAMER

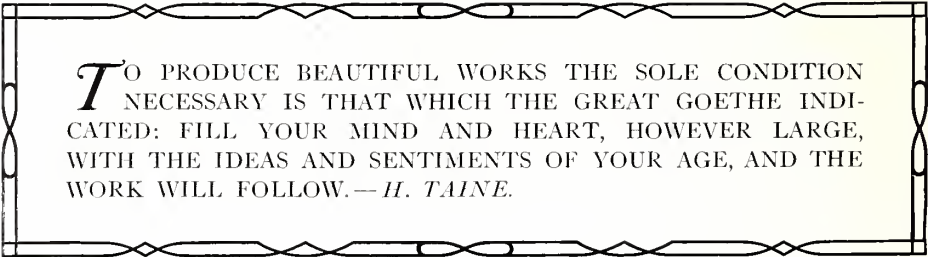
artist — the power of imparting dignity and interest to commonplace subjects — Dührkoop has endowed a scene which seems almost unpromising in its simplicity with unusual attractiveness. Of drama there is little or nothing, or of the common (or household) kind. The gentleman, judging from his position and expression, is in the hard and calculating frame of mind of men who have not yet dined; while the lady seems to calculate also — on the chances of success she stands for that new hat after the coffee. The poses and lighting well illustrate Dührkoop's unconventional treatment, yet the composition is harmonious and well balanced, the strongly-lit head and hand of the man being sufficient counterpoise to the rich curves and luscious sheen of the lady's exquisite dress.

The light middle-tone of the sofa connects the two figures; and although it is quite to one side of the picture, it will be noticed how important a part the hand of the man holding the cigarette plays in the composition. Dührkoop's secret, perhaps, in this, as in other pictures, is his power of looking at the scene as a whole and accentuating those large facts which give to it vitality and beauty. He holds that the surroundings of one's daily life form the best backgrounds for portraits, and that it is ridiculous to vignette or color a photograph.

"The Dreamer" is a portrait of a head that Watts would have loved to paint, and which, with a greater technical range, he would no doubt have treated much as Dührkoop has done. This is one of the most masterly photographic portraits we have seen. The expression on the face recalls that of the wonderful head by Vandyck of the so-called Gervatius; the scholarly brain is visibly thinking behind those deep-set eyes—the eyes of the seer and the dreamer of dreams. And so small a mass as the slight towering of the head adds greatly to the expression of thought. The hands, also, are so posed as to become almost as indicative of strength of character (mark the will-power expressed by the thumb) as the face, and yet so as not to become over-prominent, but rather to supplement it. And it will be seen that it is Dührkoop's method throughout his work to make the hands an integral but subordinate part of the interpretation of character. He has wisely kept the coat in this portrait as broad as possible, the pure white strips of collar and cuff supplying the necessary staccato notes in the composition.

In this last example it is possible to trace the influence of Vandyck in Dührkoop's work, and it can be seen that he has solved Vandyck's secret of imparting a certain courtly grace and aristocratic bearing to the head of his model. Too often the ordinary photographer has but one set lighting for every sitter; but here it will be seen that Dührkoop recognizes how important the lighting of the face and the pose of the head and eyes are in expressing character, and how carefully he has studied them before making the exposure.

I cannot but conclude this appreciative article with a hope that in the near future the spirit of Dührkoop's endeavor may become more universal among photographers; that the mechanical and rule-of-thumb methods may pass away, and that the pictorialist may combine more of the artistic spirit with the personal vision in his art.

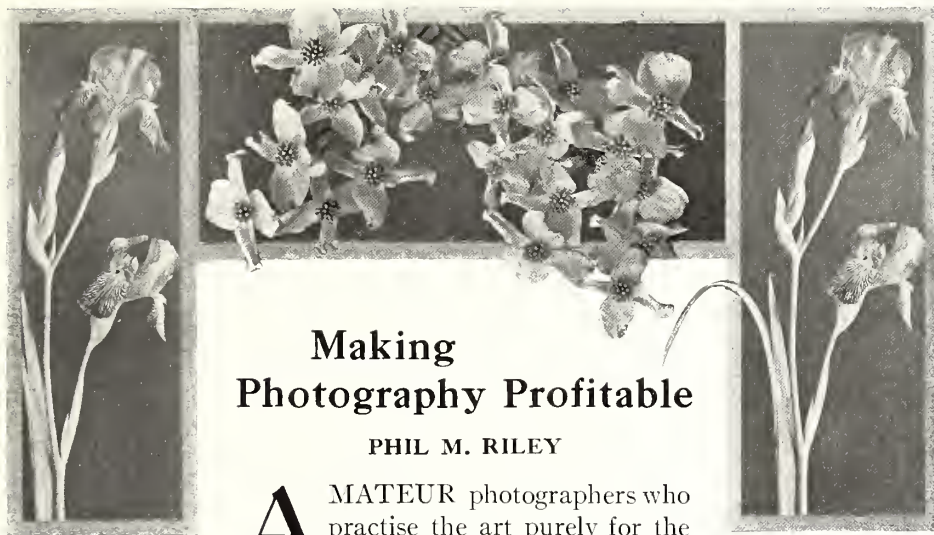


*T*O PRODUCE BEAUTIFUL WORKS THE SOLE CONDITION NECESSARY IS THAT WHICH THE GREAT GOETHE INDICATED: FILL YOUR MIND AND HEART, HOWEVER LARGE, WITH THE IDEAS AND SENTIMENTS OF YOUR AGE, AND THE WORK WILL FOLLOW.—H. TAINÉ.



R. DÜHRKOOP

MISS R.



Making Photography Profitable

PHIL M. RILEY

AMATEUR photographers who practise the art purely for the love of it are constantly asking

the editors of PHOTO-ERA how they can make their cameras pay the cost of maintenance by making occasional pictures in leisure time which can be sold for one purpose or another. I. W. Blake briefly outlined the principal ways of doing this in PHOTO-ERA for March, 1908; but there is such a steady demand for information of this nature that it seems advisable to go into at least one field suggested by her a little more thoroughly. As associate editor of PHOTO-ERA I am in close touch with the photographic needs of publishers of books and magazines, advertisers and advertising-agencies, and it is the possibilities for the amateur photographer in supplying these needs which I shall discuss here.

The amateur who has become proficient in the use of his camera can in the production of prints of this nature find congenial employment for leisure time, an easy way of increasing his income and, if he develops an aptitude for the work, an effective means for creating a name for himself. Several have already essayed this line of work in an amateur way, have been successful and have continued on a more extensive scale as professionals. Many others might be equally fortunate if they would only take the initial steps.

A very interesting and profitable field which wide-awake camerists can enter successfully is the making of photographs for advertising-purposes, whether it be adopted only as an occasional source of extra spending-money or as a regular department of the photographic profession. The connection between photography and advertising is daily becoming closer and more intimate, as an analysis of the advertisements in current periodicals will show. Agencies and advertising-managers of magazines are constantly in search of good ideas for their clients, and they, as well as the manufacturers themselves, are almost always glad to consider material of a novel and artistic character which is likely to produce business. Moreover, the prices paid for such photographs are much greater

(Decorative head-piece by K. Theodor Krantz.)

in proportion to the actual amount of work performed than in any field other than the higher grade of pictorial photography for book-illustration or the art trade.

Now pictures for advertising are of two kinds: either they have no relation to the advertisement, but serve to attract attention to the copy, or else they illustrate the article or proposition given publicity. In the former case good portraits of beautiful women and cute children are always in demand, particularly if made along original lines which will catch the eye and still be in good taste. The power of appeal in the better class of such pictures cannot be denied: every whole-hearted American, man or woman, loves children, and the right sort of juvenile photographs are sure to sound a responsive chord in the breasts of nearly all who see them; likewise, the beautiful woman, in picture as well as actuality, will have the attention of the men, and, through envy if for no better reason, is likely to secure more than a passing glance from the women — nor should it be supposed that from a psychological standpoint this is an unfavorable mental attitude to create in effecting the sale of toilet preparations, for instance.

Turning now to the more important side of this work, there are a great many of the products advertised which seem to call for illustration in order to present them to the prospective buyer in an attractive manner. What experienced manufacturer would think of advertising an automobile, motor-boat, phonograph, typewriter, desk-lamp or even a shoe without adequate pictorial illustration? Here is presented a big field for the camerist with ideas and the ability to execute them. If the resulting photographs, like those intended only to attract, are of a striking or original character, so much the better; but here the all-important qualities are that they shall illustrate plainly and artistically the form, character and uses of the product and, above all, shall create in the mind of the possible buyer a desire to possess it because of the pleasure or comfort it will give him, the benefit or saving he can derive from it or some similar reason. Thus it becomes apparent that the camerist must evolve an idea before making a photograph — must hit upon some clever way of setting forth the merits of the product clearly and concisely — must, in fact, design the advertisement. This does not mean that the entire copy must be prepared, but only the head-lines or principal catch-phrases which show the application of the picture. If one has ability as a writer of advertisements, and cultivates it, the result may be a permanent position with some agency. In any case, it will be found a help in disposing of photographs. Likewise, a knowledge of the use of pencil and brush is of the greatest assistance. Ordinarily, the photographs and material furnished are placed by the agency or advertiser into the hands of an artist, who prepares the design for the engraver. The camerist who can do this work himself can command a higher price and can often effect sales because of the convincing quality of the finished advertisement when the photograph alone would not receive attention. The manner of application is in this way seen to be quite as important as the photograph.

Manufacturers of cereal foods are now among the most extensive advertisers, and with this article is reproduced a photograph which is adaptable



PERCY G. FARQUHARSON
THE MASTER OF HOUNDS



to their needs. This sleepy girl with the bowl in her lap shows the content which follows the eating. It is along the more artistic lines now being employed by many concerns, and would make an effective advertisement when properly treated. The little girl at the telephone, by H. L. Bradley, reproduced in PHOTO-ERA last month, might be saying, "Mamma forgot Cream of Wheat, but we want it." The frontispiece of the May issue is equally adaptable. Advertising of just this sort is being used by several firms to keep well-known products constantly before the public in an attractive way.

The camerist who with pencil and brush can give his work the right setting can find a ready sale for a still more decorative and artistic class of photographs to be used as magazine-covers. Not that the completed design is any more essential here than in advertising, but, as in that field, the finished copy ready for the engraver makes a stronger appeal to the publisher. No more than a cursory glance at any well-stocked news-stand is necessary to show that a great many magazines devoted to architecture, gardening, outdoor life, recreation, science, current events, music and many other subjects are using photographs regularly on their covers; and this same survey will also serve to show something of the character of the work desired.

The design should, of course, be in keeping with the nature of the magazine on which it is to appear; it should be timely or seasonable and, above all things, striking; it must attract the casual observer and effect a sale. Simplicity, strength and boldness are the qualities desired; dainty designs are usually a failure on the news-stands. There is always a tendency to overload the photograph with too much material and unnecessary detail. Designs made up of the fewest number of parts or accessories are usually the most successful.

There are now so many magazines devoted to such a variety of subjects that practically every phase of nature or life and effort as we know them presents endless possibilities if treated in a striking manner. That one quality must be kept constantly in mind. A recent issue of a magazine devoted to the stage had a beautiful four-color portrait of Mary Garden, the operatic singer, for its cover. Many photographs of this vocal artist have been published, but none has attracted so much attention as this. The first day it was displayed in the Boston Subway a group could constantly be seen about it. A striking, unconventional, yet artistic pose was the reason for it all. Another magazine, devoted to engineering, recently had for its cover a photograph of workmen joining steel beams near the top of the Singer Building several hundred feet above New York City. They were placed boldly near the top of the picture-space, while below, through the few narrow beams which supported them, could be seen a wonderful panorama of America's greatest city. It made one fairly gasp even to look at it. Not long ago a scientific journal had on its cover a picture of a wireless telegraph operator, his face illuminated by the weird light of the spark from the instrument before him. Still another similar monthly showed the car of a dirigible balloon with the helmsman just ahead on the flimsy platform, the great gas-bag above and a marvelous view far below. These examples represent the more dramatic of

timely covers, many of which could be made by but few camerists. A large number of magazines, however, require only seasonable subjects, or those in keeping with their contents. These can be quite as striking and effective in their treatment as the more unusual designs. Flowers and fruits treated in a decorative way, scenes of sport and recreation, child-life at home — all these subjects and many others can be used by a great many magazines.

As examples of this sort of covers I have a vivid recollection of three recent magazines. One of them showed a young man and woman shooting the rapids of a Canadian stream in a canoe. The figures were placed high at one side of the picture, while dashing diagonally across to the opposite lower side was a mass of swirling water. Another design represented a fisherman standing alone in a boat with one hand holding his rod — bent almost double by a bass still splashing the water in his struggles for freedom — and with the other attempting to net him without breaking the rod or capsizing the boat. In both the excitement was intense and the composition such that the covers were very effective. For another cover a little clump of flowers growing on the bank of a tiny stream furnished the only material, yet the composition was so bold and unusual that it was one of the best covers of the month. "The Master of Hounds," by Percy G. Farquharson, would make an attractive cover if printed in four colors.

Thus it can be seen that the field is large and the work profitable. Good finished designs usually sell for about \$25; but rates vary from \$10 to \$100, according to the quality of the work and the reputation of the artist. Notwithstanding these fair prices and the increased demand for such work, there is still a lack of photographic designers who have new ideas.

Of a similar nature are the covers of catalogs, and the field of work along this line which may be done for manufacturers and advertising-agents is practically unlimited. They both want new ideas and are willing to pay well for them.

Turning again to the magazine field, it must be remembered that there is a big demand on the part of illustrated magazines for photographic page-decoration. Department headings, head and tail-pieces for articles, require horizontal panels in great variety. These must be in harmony with the accompanying text, but a perusal of any magazine will furnish a clue to the sort of material which is likely to have a ready sale. At the beginning and close of this article are examples of this sort of work. Contents and inside title-pages also furnish opportunities for decorative treatment, and magazines devoted to country life, gardens, recreation and the like can always use good photographs and designs. Flowers, grasses and trees are especially adaptable, but several magazines devoted to yachting regularly demonstrate the decorative possibilities of marine photography. In fact, the right person will find the proper way successfully to make and apply photographs of almost every sort which have an illustrative value. As a suggestion in this particular branch this month's contents-page has been set in decorative style, making use of a spray of lilacs, which seems timely. It should be remembered, however, that many magazines have large pages and the decorative possibilities are correspondingly greater.



KATHERINE BINGHAM
SO SLEEPY



Most magazine publishers to-day are book publishers as well, and this opens up another practically untilled field which is quite as important as magazine work. Here, again, covers must be had, and there is opportunity for more conventional and artistic designs. The book, unlike the magazine, is not sold by its striking appearance, but rather upon the reputation of its author and as a result of the advertising given it. Thus it is that book-cover designs are usually of a high order of excellence and in very good taste. The ordinary brass book-stamp may be taken from a photograph practically the same as from a drawing, and photographs which are desirable for use in this way are always in demand; likewise photographs for inside title-pages and lining-papers for the bindings. Another form of cover, often seen, consists of a half-tone reproduction pasted into a plate-sunk panel on the cover. This style is particularly applicable to books of travel and other photographically illustrated narratives. In this connection it may be well to mention that those who have good views of interesting localities should send specimens to publishers who are likely to want them. Oftentimes photographs by amateurs possess much greater local color and poetic charm than the average professional views which it is often found necessary to use.

The highest type of photographic work for publishers is the illustration of poems, essays and novels. The former we often see in the form of decorative magazine pages such as have often appeared in PHOTO-ERA, but the latter has been done successfully by only a few. The right person will one day make his fame and fortune by it, for there is no reason why a photographic Christy, Gibson, Parrish or Lyendecker should not spring up among us. The field is a vast one; its possibilities are unlimited. The best possible equipment is necessary, professional models, many accessories and marked ability; but the successful photographic illustrator will have plenty to do, as have the successful artists of the pencil and brush.



DR. P. W. BURKE

SUNSET

Enlarged Copies Direct

A. E. SWOYER

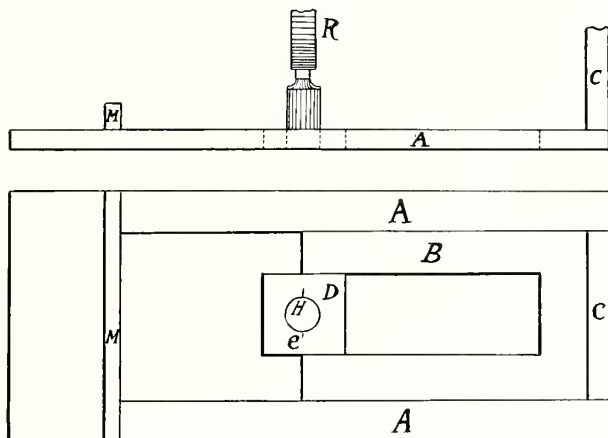
IN the career of every amateur photographer there comes a time when he wishes to copy something — painting, etching or miniature. If the subject is large, or if the photographer is equipped with a copying-lens and a camera of unusual bellows-draw, the subject need have no terrors save those of exposure. But should he wish to copy a miniature, for example, and has at his disposal only the regulation hand-camera, he will find the copy obtainable so small as to be useless.

Some time ago I had occasion to make a number of copies of an old daguerreotype, but possessed only a Premo No. 4 and an assortment of Kodaks with which to do the work. Viewed through the ground-glass of the Premo, the limited bellows-capacity of which fixed a limit of about six feet as the nearest that I could place the lens to the original in order to get a clear copy, the daguerreotype appeared of about the size of a large pinhead. Obviously this would not do, and recollecting that my Kodak portrait-attachment, if slipped over the regular lens, would give a combination of shorter focus, I placed it in position for trial. Although this arrangement enabled me to work within about three



and one-half feet of the original, and the resultant copy was a trifle larger than a postage-stamp, I decided to make one more trial for a direct full-sized copy rather than consider bromide enlarging.

A three-inch reading-glass was obtained, placed between the original and the lens — and the object was attained. By placing the glass at different distances from the original, copies of a degree of magnification limited only by the size of the glass were obtained. This is perhaps more clearly shown in the illustrations, which are offered not as models of technical perfection, but as slight hints of what may be accomplished. Figure 1, about one-fifth size, shows the largest sharp copy obtainable with the regular lens; Figure 2, about three-fifths size,



is the largest obtainable through the use of the portrait-attachment; Figure 3, one and two-fifths the size of the original, is the copy made using both reading-glass and portrait-attachment; this copy might easily have been made larger by the use of a glass of greater diameter.

In copying by this method, only two factors are likely to cause difficulty; namely, the variation in exposure due to the different magnifications, as well as to the absorption and refraction of light by the additional lens-surfaces; and, secondly, the necessity of securing perfect parallelism of original, reading-glass and lens. Exposure is a variable factor effected by lighting, color of original and size of copy desired; but as a rough guide I may say that the illustrations accompanying this article were made from a clear black-and-white original lighted by a single Welsbach "Reflex" burner, and on Hammer's "Slow" plates required exposures at $f/8$ as follows: Figure 1, one minute; Figure 2, seventy seconds; Figure 3, eighty seconds.

The second difficulty, i.e., securing parallelism between the various objectives, may be as readily overcome. My own work along these lines being only occasional, I find that a pile of books on a drawing-board or square table against



HOWARD S. ADAMS

HAPPY CHILDHOOD DAYS

which to stand the original, and an empty ink-bottle to serve as a stand for the magnifier — the whole being trued up by means of triangle and T-square — gives sufficiently good results. For the man who intends to do this work regularly, however, a stand made as shown in the top plan and horizontal sketches will be found a great saver of both time and plates. In these sketches, A is the base-board, having the strip M nailed on as shown. The front of the camera-bed should be flush with this strip when copying. B is a slide having the back-board C perpendicular to it, to which the original may be fastened. D is a slide arranged to work to and fro in B, and having the hole H for the reception of the handle of the reading-glass. After the glass has been once adjusted in this hole, it is a great aid in future work to mark on the handle of the glass to correspond with the marks shown at *e*; this enables the glass to be readjusted exactly at any time.

Although from the description of this stand it may seem complicated, it is in reality very easy to make, and has the added advantage that, if made in sufficient length, it can be converted into an enlarging-easel for use with a lantern by the removal of the slide carrying the reading-glass. This method may not appeal to the average amateur; but to the man who delights in experiment and in the adaptation of the means at hand, it will, I think, prove an interesting novelty.

On the Rendering of Color-Values

GEORGE H. SCHEER, M. D.

ALITTLE more than a year ago the world was startled by the announcement of the discovery, by the Brothers Lumière, of a process which made it possible to photograph objects in their natural colors. It is safe to say that since the introduction of the dry-plate, no other discovery created such an amount of excitement in the photographic world as did this one. By some the announcement was hailed with open joy, as they saw in it long-awaited realization of the dream of photography in colors: others frankly expressed their incredulity, for, if the reports were true, it meant the accomplishment of the apparently impossible. As the details of the process were published and examples of the new color-photographs were exhibited, all doubts as to the feasibility of reproducing objects in their natural colors, by purely photographic means, were dispelled; at the same time, the publication of the full details had the effect of considerably cooling the ardor of the too enthusiastic, for those to whom the first announcements of the Lumières' wonderful discovery had opened up vistas of an endless variety of color-photographs of every variety of subject were naturally disappointed when the limitations of the Autochrome process became known.

Though a true color-process in every sense of the word, the Lumière method in its present state of development can find only a very limited application. Its chief drawbacks are two in number: the colored image rests upon a fragile glass support and can be viewed only by transmitted light; and the exposure necessary is so long as to confine its application to a very small variety of subjects. Moreover, the cost of the Autochrome plates is such as to keep them out of the reach of a large number of amateurs.

At the present time we look upon the Lumière process, not as being the final and complete solution of the problem of color-photography, but rather as representing the most advanced step in that direction.

There are other processes for producing photographs in colors, such as the Thames and Omnicolor, as well as the old process of multiple printing in gum-bichromate and the more recently introduced pinatype and oil-pigment processes; but each of these is fraught with considerable technical difficulties, while the multiple gum and oil-pigment processes call for a high degree of skill and a training in the proper handling of pigments which very few, indeed, possess.

The possibilities, in skilled hands, of the multiple-gum process are splendidly exemplified in the work of Henry Ravell, of Mexico City, whose exhibit in the Fifth American Salon will prove a revelation to all who are fortunate enough to see it. But while his work compels admiration, it is safe to say that few will have the temerity to try to follow his lead; for so exquisitely perfect is the color-work, and so manifestly the handiwork of a genius, that seeing it is calculated to discourage rather than to inspire would-be emulators.

After this brief survey of the present status of color-photography it must be evident to the reader that the solution of this knotty problem is still far from being accomplished; for until we are able to produce with ease and certainty, on paper or some similar support, any number of prints in colors, we cannot consider the problem as solved; and any process that falls short of this end will find only a limited field of usefulness.

But while we have yet no universally-applicable system of photography in colors, we have at least the means for rendering true color-values in monochrome. Though the Lumière process is extremely interesting from a scientific point of view, the perfection of color-sensitive plates marked an advance of far greater importance in a practical way. It does not speak well for the progressiveness of the amateur that such a great majority still fail to avail themselves of the splendid opportunities offered them by the orthochromatic plate. To realize the full possibilities of orthochromatic photography it is necessary only to study the work of modern pictorialists as exemplified in the exhibitions, such as the annual photographic salon and the various high-grade competitions. Among these pictures one will find every variety of sky represented, but he will not find a single one in which the sky portion is represented by blank white paper unless the subject happens to be a brightly sun-lit mist picture.

It is only a few years back that even the best workers produced pictures in which the sky was almost invariably the white paper of the printing-stock. This was due partly to faulty technique in developing, which resulted in rather inordinate density in the high-light portions of the negative; but the chief blame for those atrocious skies was to be laid to inherent defects in the ordinary (uncorrected) dry-plates then in use — defects so vital as to make it practically impossible to obtain anything approaching true rendering of color-values by their use.

We learned in our high-school physics that white light is really a mixture of seven colors — violet, indigo, blue, green, yellow, orange and red; that these different colors depend upon differences in the wave-length and therefor in the rate of the vibrations which, upon striking the sensitive nerve-endings of the retina of the eye, produce the sensation of color; that objects have the power to absorb some of the colors of the spectrum and to reflect others, the reflected waves in each instance determining the color of the object: thus an object which appears yellow to the eye absorbs all the waves except those that produce the sensation of yellow, the latter waves alone being reflected — an object which absorbs none of the rays but reflects them all will be white, while one that absorbs all the light rays and reflects none will appear black. In considering the subject of the action of light upon a photographic dry-plate we need to deal with only three of the colors of the spectrum, the so-called primary colors: red, blue and yellow. Given these three colors, we may, by variously combining them, produce all the other colors.

Almost every photographer, no matter how limited his experience may be, knows that colored objects do not photograph as they appear to the eye when

the ordinary plate is employed. It is a matter of common knowledge that blues are rendered much lighter and yellows much darker than they appear, and that reds reproduce as black. In other words, the ordinary dry-plate does not see these colors as our eye sees them; it is, if we may use the expression, apparently color-blind. This brings us to the subject of the actinic value of light. Actinism may be defined as that property of light which enables it to produce chemical changes; it is by virtue of this property of light that the ripening apple turns red, the cheek exposed to it tans, and colored objects fade in the sun; it is this same actinic action of light that effects the invisible chemical changes in the silver salt of the dry-plate emulsion which determines the amount of reduction that will subsequently take place in the developer. All rays of light possess actinic powers, but they vary greatly for the different colors; thus the red rays are so weak in actinic action that they have practically no effect upon an ordinary dry-plate, and for that reason red is employed as a safe-light in the dark-room. Generally speaking, the actinic value of the different colors of the spectrum is inversely proportional to the wave-length and directly proportional to the rate of vibration of the rays. Since the red has the slowest rate of vibration and the rate increases toward the violet end of the spectrum, it follows that the actinic value of the various colors increases likewise as we approach the violet from the red end of the spectrum. The actinic value of the different colors does not correspond to their luminosity value or their apparent brightness to the eye; thus a deep ultramarine will reproduce much lighter than a bright orange when photographed on an ordinary dry-plate, though, of course, to the eye the latter is very much the lighter of the two.

Having thus briefly reviewed the philosophy of light-action, let us now turn to the practical consideration of the subject of the rendering of color-values in photography. It is the aim of the serious worker to reproduce his subject truthfully in his picture; in other words, to represent it just as the eye sees it. Under certain conditions this is a comparatively easy matter, as, for instance, when photographing during a fog, for the all-investing vapor blots out all color and reduces everything in the view to various tones of gray. So, too, when the trees are bare and a covering of snow invests the landscape and gray clouds hide the sun completely, we have once more a view composed of grays. In photographing along the seashore, where the view is composed of blue sky and blue water, and of white sand strongly illuminated by the sunlight, it is likewise not difficult to obtain correct values. In the first two instances we have really a view in monochrome, while in the third case mentioned the actinic value of all the component parts of the view is practically identical. Under the conditions named, the actinic value of every portion of the view corresponds precisely to its luminosity, or apparent value, and an ordinary dry-plate will answer the purpose quite satisfactorily; but take a subject in which are found colors widely varying in actinic value and use an ordinary dry-plate on it and the resulting photograph will be a self-evident libel of the truth. Let us take the case of an ordinary landscape consisting of a brook with grassy banks in the foreground,

some trees in the middle distance and a blue sky above. If we photograph such a view we time our exposure so as to have it approximately correct for the green, that being the predominating color of the view. Now the actinic value of green is quite low as compared with that of blue, and the inevitable result is that the blues in the view, the sky and its reflection in the water, will have received many times their proper exposure and will print as white paper. If, on the other hand, we try to equalize matters by cutting down the exposure, excessive contrast in the view-portion of the picture will result, owing to under-exposure of the greens. If we have a landscape with clouds and time it properly for the view, there will be at best only a faint suggestion of clouds in the picture, because the white of the clouds and the blue of the sky are so nearly of the same actinic value, and both are so greatly over-exposed, that the differentiation of their relative tones is lost in the blocking up of the high-lights. It is possible to get very excellent cloud-negatives on ordinary plates if the exposure is timed accordingly, but the exposure in this case is so brief (perhaps one-twentieth or even less of the normal) that the view itself is represented only by clear glass in the negative. Such sky-negatives are, of course, useful only for printing skies into pictures that would otherwise be bald-headed. This method of obtaining skies was the method of necessity until within the last few years; but printing-in skies is such a bothersome process that it will never be the method of choice with the modern worker. Now then, if the ordinary plate proves inadequate to render blue and green even approximately true in value, what can one expect when browns and reds are added, thus giving the whole scale of actinic values to cope with? To attempt to render color-values with an ordinary plate, where the colors in the subject vary considerably in actinic powers, is to attempt the physically impossible.

(To be continued next month, describing the bathing of ordinary plates so that they will render color-values correctly.)



EDITORIAL

Lessons To Be Learned by the Tourist

THE photographer who shall have his first taste of European travel this summer has but small conception of the joys that await him on the other side. There will be revelations, too, and many. Wise, indeed, is he who will acknowledge the superiority of European culture, good breeding, temperance and thrift. In matters of commerce, alone, and methods of procuring business, Germany will be a revelation to the American observer. It is, more particularly, the works of the great masters in art by which the visitor will be most deeply impressed. The portraitist will scarcely recognize in "The Lesson in Anatomy" and "The Night-Watch" the master, whom, through poorly-executed photographic or half-tone reproductions, he had learned to identify only with the extremes of light and shade. In these and other representative works of Rembrandt the enlightened photographer will find that his illustrious guide to portraiture did not, as he had ignorantly imagined, completely suppress every suggestion of the human figure below the head after the manner of certain practitioners who impute this senseless style of lighting to the great Dutch master. Again, the practitioners who cannot escape the influence of the pre-Raphaelite school will discover that their impressions gained through wretched and misleading half-tone prints are far removed from the truth, when they gaze upon such pictures as "The Blessed Damozel" and "Ecce Ancilla Domini."

Erroneous ideas concerning the coloring of the works of the great masters, imparted through so-called facsimiles in color, either in loose form or contained in cheap, inferior art-publications, will be forgotten when the student beholds the original pictures in the great art-galleries of Europe. He will learn speedily to discriminate between first-class copies in monochrome or color and those worthless reproductions which, in his ignorance, he eagerly bought at home. It must be borne in mind, however, that many a treasured work of art has been hopelessly ruined by time, physical action or bad restoration, notably "Mona Lisa" and "The Last Supper," by Da Vinci; "The Assumption of the Virgin," by Titian, and "The Adoration of the Shepherds," by Correggio. These works, together with many others too numerous to be mentioned here, afford no conception of the draughtsmanship, power and harmony of color and beauty of expression of their creators. The student should turn, therefore, to others of their works, which, while perhaps less popular, are, at least, in a fair state of preservation. What is probably the finest Luini in existence is "The Marriage of Saint Catherine," in the Poldi-Pezzoli Museum, at Milan. It still retains its pristine freshness and beauty. All pictures are not what they seem, for many attributed to the old masters are nothing less than forgeries or painted by inferior artists. Of the thirteen Raphaels in the Louvre only five are genuine. Nor are the other

art-galleries — great and small — immaculate in this respect. These false pretensions are due to the rivalry among the great art-repositories of Europe.

It thus behooves the picture-lover to be prepared for these disappointments, to be able to view the art-treasures of the Old World with a fair degree of intelligence, and not to rely entirely upon the prejudiced opinions set forth in local hand-books or official catalogs. Trustworthy books on the subject are not lacking, and the editor has more than once urged his readers to pursue such a course of preparatory study. It is time well spent, as experience will show.

With the Compliments of the Publisher

THERE is a saying to the effect that imitation is the highest form of flattery, the truth of which is manifest in nearly everything we do. This faculty of imitation is as natural to most of us as the act of breathing. In many cases it is highly desirable, for the national traits of a people are expressed by uniformity in speech, dress and customs. The perfect imitation of objects often becomes a dubious practice, if done with intent to defraud by passing the imitation for the genuine, such as money, gems, signatures and works of art. In the fine arts—painting, music, poetry and the drama—imitation is often so closely allied to plagiarism as to be practically synonymous with it. When it is transferred unconsciously the imitation is charitably termed “reminiscent;” if done intentionally the act becomes theft. While the imitation may be obvious enough, it is often hard to decide whether it was insensible transmission or deliberate seizure.

A certain well-known photographic writer has been known to “lift” whole chapters from the works of others. One of our American cotemporaries detected the abstraction in time and promptly rejected the proffered manuscript. There are many budding authors, oblivious to what has been written on photographic topics these many years, who are similarly gifted. Original matter, even if it require to be edited, is preferred by publishers. But back to our muttons!

Thus, one by one, the features which have made PHOTO-ERA what it is to-day are meeting too kind a reception at the hands of our cotemporaries, by being adopted without due credit. Several years ago PHOTO-ERA published an original, pictorial design to serve as a contents-indicator. This design must have possessed uncommon merit, for it was immediately appropriated by an English cotemporary. Improvements in our several departments were similarly honored, in turn, by appreciative photographic journals. The department “Our Illustrations”—original with PHOTO-ERA in the completeness of its intelligence — has been very generally applauded. Our cotemporaries, both native and foreign, were quick to perceive its importance, and, one after another, they are adopting it. Among the publications which have thus complimented PHOTO-ERA is *The Amateur Photographer*, which introduced this feature in its issue of March 23, 1909. We shall endeavor to bear our honors modestly and, not resting content with the successes which, apparently, we have achieved, continue to improve our publication to the best of our knowledge and ability.

OUR ILLUSTRATIONS

OUR frontispiece, by Rudolf Eickemeyer, Jr., was inspired by a few simple verses in a book of child's poems by an English poet. Mr. Eickemeyer does not recall the author, but the lines impressed him strangely and he became possessed of a desire to picture it. That he has succeeded in an eminent degree no one will question. The composition is eloquent in poetic feeling and pictorial beauty. Data: Noon; Seed 26 x plate, 8 x 10; $\frac{1}{4}$ second exposure; lens of 14-inch focus devised by Mr. Eickemeyer.

The salient features of R. Dührkoop's admirable portrait characterizations have been so carefully pointed out by Mr. Hoppé in his article of appreciation that further critical reference here is unnecessary. All were made with a Voigtländer and Sohn Heliar lens of 36-inch focus, f/4.5, on Seed plates.

"Dr. von Neumayer." Data: September, 3 P.M.; clear; 4 seconds; Edinol developer; platinum print.

"A Reminiscence." Data: February, 1 P.M.; rainy; flashlight; Edinol developer; carbon print.

"What Will He Say?" Data: February, noon; clear; 4 seconds; Edinol developer; platinum print.

"Motherly Love." Data: May, 2 P.M.; open air; 1 second; Edinol developer; platinum print.

"The Dreamer." Data: February, noon; clear; 4 seconds; Edinol developer; platinum print.

"Miss R." This strikingly beautiful art-study was made in England at the studio of Mr. E. O. Hoppé when Mr. Dührkoop was visiting him last year. The strong lines of the picture could hardly be improved, while the arrangement of masses and breadth of the whole effect are equally pleasing. One seldom sees a more convincing example of the effectiveness of a large hat with which to set off the features of a young woman. Data: February, 11 A.M.; clear; 7 seconds; Edinol developer; platinum print.

K. Theodor Krantz has given his flowers a dainty treatment which suggests one of the many possibilities in page decoration. No data are available.

"The Master of Hounds," by Percy G. Farquharson, furnishes a good example of moving-objects pictorially treated. It is a subject which will appeal to many, while the quality of the work in composition and technique is of a high order. Data: morning sunlight; Dallmeyer lens, 6 $\frac{1}{2}$ -inch focus, f/8; $\frac{1}{100}$ second exposure; Seed 27 plate; M. Q. developer; Royal bromide sepia enlargement.

In "So Sleepy" Katherine Bingham has given us a subject arousing the sympathies of almost everybody. It is thoroughly unconventional, yet wholly in good taste; and this fact, added to the boldness of the surroundings, lends to it a

striking charm which greatly adds to its effectiveness. The white cap is unfortunate with this pose of the head. No data are available.

"Sunset" is a well-composed little scene by Dr. P. W. Burke, the silhouette effect of the trees against the glowing sky being very decorative. No data are available.

Howard S. Adams, a disciple of the focal-plane shutter, has picked up a great many amusing genre pictures at the seashore, but "Happy Childhood Days" is one of the best. His little models are quite unconscious of his presence, and this gives spontaneity to an otherwise admirable print. Data: August, 9 A.M.; hazy; Cooke lens, Series II., 8.1-inch focus; $\frac{1}{200}$ second exposure; Eastman Extra Rapid plate; tank development; bromide enlargement.

"Busy Hours on the Meadow" is a dainty little panel, and possesses the good quality of unity so often absent in sheep pictures. The grouping is such that, in the absence of stragglers, one thinks not of individual sheep, but of the flock as a whole. Our record of just who the maker, J. E. G., may be has been lost; but we shall be glad to give full credit if he will reveal himself. No data are available.

OUR MONTHLY CONTEST

UNDOUBTEDLY, the "Winter Scenes" competition drew the largest number of prints ever received by PHOTO-ERA for a monthly contest. Of them all there was no question that D. F. Boyden's "Snow-Shoe Tracks" was the most original and striking, besides having marked pictorial qualities. The sky is a cold one, while the trees and snow both have a wind-swept appearance. The location of the tracks and principal trees is excellent, as is the breadth of the whole effect. Data: February, 4 P.M.; sun obscured by clouds; Goerz Celor lens, No. 7, 14-inch focus; Standard Orthonon plate; pyro-soda developer; gaslight print.

"Il dégèle," by V. R. Cunningham, depends to a great extent upon the picturesqueness of the scene, although it has been handled with consummate skill. An Autochrome of this subject under the right conditions would be beautiful indeed. Data: April, 9 A.M.; good light; Barnet Ortho plate; $\frac{1}{100}$ second exposure; lens at f/8; rodinal developer; bromide enlargement.

"A Winter Afternoon," by Clayton P. Chamberlain, has the true winter spirit. Without the figures the landscape would be attractive, but with them the picture is placed on a higher plane as a work of art. The lighting and texture of the snow are highly commendable. Data: February, noon; bright light; Goerz lens, Series III., No. 3, f/22; 2 seconds exposure; filter; Seed Ortho plate; M. Q. developer; Special Rough Velox print.



D. F. BOYDEN
SNOW-SHOE TRACKS
FIRST PRIZE — WINTER SCENES



THE ROUND ROBIN GUILD

An Association of Amateur Photographers

Conducted by ELIZABETH FLINT WADE

This association, conducted under the auspices of PHOTO-ERA, and of which PHOTO-ERA is the official organ, is intended primarily for the benefit of beginners in photography, although advanced camerists are just as welcome and many are numbered among its members. The aim of the association is to assist photographers by giving them information, advice and criticism in the Guild pages of PHOTO-ERA and by personal correspondence. Membership is free and may be obtained by sending name and address to PHOTO-ERA, The Round Robin Guild, 383 Boylston Street, Boston.

Send a stamp for complete prospectus.

STUDIES IN COMPOSITION THE LINE

ARTHUR DOW defines painting as a "Space Art." This clever definition applies equally, if it is not more apropos, to photography. Within the boundaries of a photographic plate, and governed by the angle of his lens, the amateur must so arrange the lines, shapes, spaces and tones as to produce a result which shall pass the muster of art criticism.

The linear character of the objects photographed and their arrangement in the space allotted for their portrayal determines the artistic merit of a picture, all other things being equal.

The lines themselves have individuality irrespective of the objects which they outline.

The perpendicular line is known as the line of dignity or severity.

The horizontal line is the line of repose, and is exemplified in restful landscape scenes where the horizon line is low; and stretches of marsh and meadow, or of winding brook or lowly valley, give the impression of peace and quietness.

The waving or curved line is called the line of beauty, and is the line which expresses grace and action. The curve is regarded as inherently beautiful and an element of graceful forms, and is usually employed in a curve of double flexure or bend.

The diagonal line conveys the effects of perspective. The broken or abrupt line gives the impression of force or power. The waved line suggests movement, and also indicates the direction of the movement.

An excellent object-lesson for the amateur to determine the value of the lines in his photograph is to make an outline drawing of the principal objects in his picture and see what relations the lines drawn bear to the pictorial composition. The outline of objects is the beginning and end of art; in fact, art is said to have had its very first manifestation in a lover drawing on a blank wall the outlines of his sweetheart's shadow — the first line drawing.

The lines in a picture must have a certain relationship to each other. To illustrate this point, study the picture in the April PHOTO-ERA entitled "By London's Waterway." This picture would have been practically without artistic merit were it not for the figure of the man at the

edge of the river in the foreground. Without this figure the near and farther banks of the river running from side to side of the picture would have seemed to have been isolated from each other and there would have been a complete absence of composition. The figure seemingly joins the two parts of the picture by introducing a connecting-line.

A picture sent in for criticism by a member of the Guild is a vivid object-lesson in the opposition and diversity of lines. The picture is a bit of mountain and lake scenery. In the foreground is a line of marshy ground, then a small space of clear water, next a line of water-plants running from side to side of the print. The white water of the lake stretches beyond, on the further edge of which is a thick growth of pine trees, while in the distance is the outline of a mountain. At one side of the picture are two trees, and at the other a fallen tree, making still other and opposing lines. An outline drawing of the objects in this picture shows that the lines bear no relation to each other and are simply distracting to the eye, which seeks in vain a resting-place.

In direct contrast to this picture is one which was reproduced in the February number of PHOTO-ERA, entitled "A Foggy Day." This is a simple composition, but it is an excellent object-lesson of the harmony of line to produce an artistic effect.

One might make decided progress in the study of lines, by outlining in water-proof ink the principal parts of a photograph, then bleaching the print, leaving only the lines themselves. In this way one would learn to see lines as well as objects when composing a picture on the ground-glass.

Studying one's photographs from the "line" point of view gives one an insight into harmonious composition which cannot be obtained so well in any other way, and one finds that the most satisfactory and the most artistic pictures are not those of conflicting lines, but those in which the leading lines and forms continually recur throughout the composition.



The optimistic man is he who believes this country will be on its plane when he and his are gone.



V. R. CUNNINGHAM

"IL DÉGÈLE"

SECOND PRIZE — WINTER SCENES

DEVELOPMENT PAPER HINTS

GASLIGHT and bromide prints should not be dried by heat. When the print is taken from the developing-tray and rinsed it should be placed face down in the fixing-bath, turned once or twice and then left face down during the fixing. Markings on gaslight prints may be removed by rubbing the print when dry with a bit of absorbent cotton dipped in methylated spirits.

To convert a bromide print into a line-drawing go over all the parts which are to be retained with a pen and water-proof ink. When the ink is perfectly dry dissolve the rest of the image by placing it in any good reducing-bath. An ounce of hypo, ten grains of ferricyanide of potassium and five ounces of water is a good bath for this purpose. If it works too slowly double the strength. Ammonium persulphate may also be used, but this is more apt to stain the print than the other bath.

To give a grained surface to a bromide or platinum print lay it face down on a piece of sandpaper and put into a letterpress for a few minutes.

THE GREATEST TELESCOPE IN THE WORLD

ALL the members of the Guild must be interested in the great reflecting-telescope — the largest one in the world — which was safely in-

stalled on the top of Mount Wilson, California, a short time ago.

The designer of the telescope is Professor G. W. Ritchie, and its entire construction has been under his direct management. The glass for the lens was cast at the St. Gobain works near Paris, France, sent in the rough to the United States, ground in the Yerkes Observatory, and the final polishing and silvering done in Pasadena, Cal.

The surface has been brought as near perfection as possible, for its greatest error is computed to be only one-millionth of an inch. All the machinery used in the polishing was made specially for it by Professor Ritchie, and the 2,800 square inches of the lens-surface are practically without a flaw. The lens itself is five feet in diameter, eight inches thick and weighs two thousand pounds.

For astronomical purposes the telescopes in use have been refractors, but this new lens is a sixty-inch reflector. With a reflecting-lens the light does not pass through it at all, but the lens reflects the image. This lens, therefore, is, in reality, a magnificent mirror, and reflects the images caught upon its surface into a group of smaller mirrors, and from the smaller mirrors are made the photographs of the celestial bodies that come within the radius of the mighty lens.

Five smaller lenses, each sixteen inches in diameter, comprise a part of the equipment, two

of which are planes, and three have convex hyperbolic surfaces. The big lens itself has a convex parabolic surface.

The polar axis of the lens weighs over four and one-half tons, and the movable section weighs twenty-four tons. The friction of its movements is reduced to a minimum by having this rotating weight float in a mercury bath instead of resting on bearings, thus allowing this ponderous instrument to be moved easily by a slender boy. The largest telescope in the world is so arranged that it moves the most easily.

An immense driving-clock six feet high, with its worm-gear ten feet in diameter, moves the telescope to correspond with the movements of the earth, thus keeping the telescope pointed at the same object for any number of hours. Fourteen motors are used to produce the different motions.

To those of our readers who are not familiar with the method of photographing the stars, it might be well to say that the negatives often require an exposure of three or four nights in order to get a distinct impression. The telescope is adjusted to the speed of the object being photographed — or to its apparent speed — the clock-work keeping it moving as the planet or star moves, and, if it is necessary to continue the exposure for succeeding nights, the telescope is simply placed in position and the plate again exposed to the object. A fine picture of nebulae was made at Harvard on four successive evenings with a total exposure of almost fourteen hours.

So delicate an instrument needs to be sheltered carefully, and this new rival in the telescopic world is housed in a building and dome intended to be perfectly air-tight. The amount of material used in its construction weighs over two hundred tons, and its double walls are protected from the rays of the sun by an outstretched canvas, while the temperature is regulated by a refrigerating-plant run by a special dynamo.

Let us see what this wonderful lens is expected to do in the way of further revelations of the mysteries of the heavens. Our naked eye distinguishes stars of the sixth magnitude, a twenty-four-inch reflector shows stars of what are classed as of the eighteenth magnitude, and this sixty-inch reflector is expected to bring within range of vision stars as low as the twenty-fifth magnitude, while the makers of this great lens expect still more marvelous disclosures than have yet been made by any of the instruments which have recorded so faithfully the marvels of the heavens.

And when we consider that all we know of the worlds floating above us is due to the science of photography, we not only have a greater respect for the science, but are proud that we are enrolled among the ranks of its followers.

Remember, when the artist and subject are gone the photograph lives. Hence use only the best materials. If you don't know where to find them, consult PHOTO-ERA.

The Round Robin Guild Monthly Competitions

Closing the last day of every month.

Address all prints for competition to PHOTO-ERA, The Round Robin Guild Competition, 383 Boylston Street, Boston.

PRIZES

First Prize: Value \$10.00.

Second Prize: Value \$5.00.

Third Prize: Value \$2.50.

Honorable Mention: Those whose work is deemed worthy of reproduction with the prize-winning pictures, or in later issues, will be given Honorable Mention, and will be awarded a year's subscription to PHOTO-ERA, to be presented by the recipient to one of his friends not already a subscriber.

Prizes may be chosen by the winner, and will be awarded in books, magazines, enlargements, mounts, photographic materials or any article of a photographic or art nature which can be bought for the amount of the prize won.

RULES

1. These competitions are free and open to all photographers, whether or not subscribers to PHOTO-ERA.

2. As many prints as desired, in any medium, mounted or unmounted, may be entered, but



C. P. CHAMBERLIN A WINTER AFTERNOON
THIRD PRIZE — WINTER SCENES

they must represent the unaided work of the competitor.

3. The right is reserved to withhold from the competitions all prints not up to the PHOTO-ERA standard.

4. A package of prints will not be considered eligible unless accompanied by return postage at the rate of one cent for each two ounces or fraction.

5. Each print entered must bear the maker's name, address, Guild number, the title of the picture and the name of the competition for which it is intended, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

6. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA. If suitable, they will be reproduced, full credit in each case being given to the maker.

SUBJECTS FOR COMPETITION

May — "Farming-Scenes." Closes June 30.

June — "My Favorite Poem." Closes July 31.

July — "Outdoor Pastimes." Closes August 31.

August — "At the Seashore." Closes September 30.

September — "General." Closes October 31.

October — "Vacation-Scenes." Closes November 30.

November — "Glimpses of Foreign Lands." Closes December 31.

December — "Self-Portraits." Closes January 31.

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January — "My Favorite Photograph." Closes February 28.

February — "Decorative Treatment of Trees." Closes March 31.

March — "The Seasons." Closes April 30.

April — "Downhill Perspective." Closes May 31.

May — "Sunlight and Shadow." Closes June 30.

June — "Landscapes with Figures." Closes July 31.

July — "Marines." Closes August 31.

August — "In the Country." Closes September 30.

September — "General." Closes October 31.

AWARDS — WINTER LANDSCAPES

First Prize: Dwight F. Boyden.

Second Prize: V. R. Cunningham.

Third Prize: Clayton P. Chamberlin.

Honorable Mention: John F. Jones, J. H. Field, Ernest M. Astle, B. V. Sweet, George Alexander, William Spanton, Eben T. Wood, H. Y. Simmons, C. W. Christiansen, George J. Mason, A. Leonora Kellogg, H. L. Standley, E. P. Farrill, T. L. Mead, Jr.

Highly meritorious work which made a strong appeal for honorable mention was submitted by George H. Scheer, M.D., Charles A. Muller, Dr. and Mrs. W. A. Rawson, F. F. Sornberger, Paul Lewis Anderson, Mata Westerman, Beatrice B. Bell, Mrs. Alice T. Foster, George Bauman, J. H. Jost.

Answers to Correspondents

Readers wishing information upon any point in connection with their photographic work are invited to make use of this department. Address all inquiries to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. If a personal reply is desired, a self-addressed, stamped envelope must be enclosed.

G. C. HEATH.—The German periodical about which you ask is not translated into English, though occasionally articles from it considered worth while are found in the magazines.

WILL W. E. VAUGHAN kindly send correct address to the editor of the Guild? Membership card sent was returned unclaimed.

DORA SMITH.—The abrasions on the films which you enclose seem to have been caused by carelessness in the washing or in the developing. Films will bear a great deal of rough usage, but when the gelatine becomes softened too much then they mar or tear easily. There is no remedy for the injuries these films have received.

F. D. S.—The yellow stains may be removed from your negative by soaking it in a solution made as follows: 1 ounce of sulphite of soda; 9 ounces of water; 5 drops of sulphuric acid. Use rubber finger-tips or a plate-lifter in handling the plate. Leave in the solution until the stain has disappeared, then wash well and dry.

D. FRED. AREND.—See answer to Willis O. R. The iridescent stains on the negative may be removed by rubbing lightly with chamois dipped in alcohol.

J. H. DEAN.—A restrainer which gives soft contrasts is made up of 100 grains of bromide of potassium, 30 grains of iodide of potassium and 4 ounces of water. Use this in place of the plain potassium solution. Place your plates directly into the developer; do not soak them before developing. The non-curling films do not need soaking. The object of soaking the films was to straighten them out so they would not curl in the developer.

ELLEN A. P.—Negatives faded by intensifying with mercuric chloride may be restored by placing in a solution of Schlippe's salts — fifteen grains of the salt to an ounce of water. A simple way to dissolve hypo is to put it in a cheese-cloth bag and pour boiling water over the bag. The crystals will dissolve readily and the solution will be clear, the bag retaining whatever impurities were in the hypo.

S. A. F.—The proportion of Rodinal to use in developing is one ounce of the Rodinal to twenty or twenty-five of water. For an over-exposed plate use fifteen ounces of water to one ounce of Rodinal and add a few drops of bromide of potassium solution. For under-exposure use one ounce of Rodinal to forty of water. If time-development is to be practised dilute with eighty ounces of water. To stop development place the plate in a solution made of five grains of citric acid to each ounce of water.

L. B. STEVENS.—Sulphite of soda either in powder or in solution decomposes rapidly when exposed to the air. In using the sodas, if your formula calls for four ounces of crystals and you wish to use the anhydrous, then use two ounces of the anhydrous, which will give you the same proportion as the crystals in your solution.

H. ELLIS.—Use a combined bath for the prints made on Whatman's paper sensitized with the plain silver solution. Do not print very much deeper than needed in the finished print, as the color does not fade in the bath. Try the P. M. C. bromide paper in the heavy rough. You can get a fine print on this paper from the negative of which you enclose a proof.

AMOS W. AND OTHERS. Among the weeklies that use photographs are *Leslie's Weekly*, New York, *Buffalo Express*, *New York Evening Mail*, *New York Commercial Advertiser*, and *St. Louis Star*. Many of the periodicals use amateur photographs, and you can doubtless find a good market for your prints, provided they are all as interesting as the one sent for criticism.

CARL M.—In making flower-studies you will find it an advantage to have the prints made indoors, as one can then adjust the lighting much better than when the pictures are made in the shadow of a house, as you suggest. In arranging the flowers use the same rules of composition as apply to landscapes and figure studies. Have the flower far enough from the background so that the texture of the background is out of focus.

WALLACE F. B.—If you wish to make a business of picture post-cards while on your vacation as a help to paying expenses, a good plan would be to make several negatives of attractive homes—for instance, in the village where you are stopping—print them on postals and then solicit the owners of the houses to purchase copies. A number of photographs of interesting places in the town, finished nicely and displayed in the village book-shop or drug-store, would doubtless bring a ready sale, provided that the field had not already been usurped. The post-card is ubiquitous even in the very, very remote towns and villages.

BELLE MARCY.—I would advise taking the small camera on your vacation, for, as you purpose going to several places, you would find it much less trouble, and the matter of enlarging is so simple that you can make either large prints or enlarged negatives from your small negatives.

C. V. L.—Your prints are very interesting as to subject, but the negatives seem to be over-exposed and over-developed, consequently the print looks hard and there are no soft contrasts. Try a shorter exposure, and do not carry development so far that all detail is lost in the high-lights.

WILLIS O. R.—To tint platinum prints immerse them in a strong solution of tea or coffee, letting them remain until the desired tint is reached. Another way is to dip them into a one per cent solution of bichromate of potash, rinse and dry, then expose them to the light. This gives a pale yellowish brown tint to the whites, which for some pictures is specially pleasing.

H. F. ANDRE.—Any of the clipping-bureaus which make a specialty of supplying clippings on all sorts of topics will doubtless be able to supply you with the reproductions of such photographs as you desire. Why not get in touch with the amateurs who make the prints and exchange prints instead of getting the half-tones?

L. A. STEVENS.—The samples of your blue-print paper are very good indeed. The clouded appearance of the sky is not due to any imperfection in the quality of the paper, but to the thin negative, which caused the sky portion to print too quickly. With a negative of good detail you ought to get excellent prints. The blue is of a very pleasing tone. Anhydrous means that the chemical is perfectly dry, free from all trace of water. For a good metol-hydroquinone developer make a solution of 30 grains of metol, 30 grains of hydroquinone, $\frac{1}{2}$ ounce sulphite of soda, 16 ounces of water. Make a second solution of $\frac{1}{4}$ ounce of potassium carbonate and 10 ounces of water. To use, take an ounce of each solution, to which add an ounce of water. This will give a negative of fine detail, soft contrasts and good density.

JESSIE B. D.—The powder on ammonium carbonate will not injure the solution, nor is it of any special use. It is due to exposure to air. The iridescent appearance of the uranium print may be removed by going over the print with a wash of artist's fixatif. This also brightens it.

Print-Criticism

Address all prints for criticism, enclosing return postage at the rate of one cent for each two ounces or fraction thereof, to ELIZABETH FLINT WADE, 321 Hudson Street, Buffalo, N. Y. Prints must bear the maker's name and address, and should be accompanied by a letter, sent separately, giving full particulars of date, light, plate or film, stop, exposure, developer and printing-process.

"BYGONE DAYS," F. D.—This is a picture of an old lady sitting before an old reel, her hand grasping one of the spokes, and her gaze—the face is in profile—seeming to be intent on the old-time article which, doubtless, in her younger days she had used many times. At the left is an old-fashioned wool-wheel. The subject and the accessories have in them the elements of a very interesting picture, but neither has been well managed. The picture is taken out-of-doors. A background of white has been tacked against a building, some of the boards showing above the drapery. On the ground has been spread a white cloth, and on this the wheel and reel have been placed, as well as the chair of the subject. The ground shows at the lower edge of the picture, and at one end. The legs of the wheel have sunk into the covering on the ground. The figure is well posed and the articles in question are not arranged badly, but the effect is far from

artistic. The subject posed in the house with the objects some distance from the wall would result in a very good picture. In making artistic genre-pictures one must consider the surroundings as well as the subject and objects. This member has artistic ideas, a print of the woods in springtime being especially good as to lines and grouping.

"PORTRAIT STUDY," J. W. P.—Here is a study of a young girl, only the head and shoulders showing. The lighting of the face is flat and therefore lacking in modeling. The lines of the hat are not bad, although the ornament on the hat has caught the light and is the only highlight in the picture, and is, of course, in the wrong place, the place for principal light being on the face. The dress is well rendered and the lines in it simple. The objection is to the band of black velvet about the neck, which has the effect of dividing the head from the body. The same subject taken with more artistic lighting ought to make an interesting picture.

"THE HILLSIDE," C. S. G.—This is a very interesting and well-taken picture of a sloping hill, the shrubbery and scattering trees being covered with snow. The point of view is well chosen, and the unevenness in the surface of the snow has given diversity and also quality to this refractory subject. The picture is well balanced by the hill in the distance, which gives tone and

character to the scene. A second picture by the same member is entitled "Shadows" and shows a glimpse of a pond or small lake, the shores of which are thickly wooded, their shadows being reflected in the water. If the print were cut in halves the left-hand half—if one may be allowed such an expression—would be a very attractive little study. The banks are nearer the spectator, and there is a glimpse of a house through the trees. The latter show detail in themselves, whereas the shrubbery and woodsy growth of the other half of the picture portray simply the shapes of the objects. The portraits of two small children were also enclosed. They were lighted too flat and the camera was too low for an attractive result.

"A LITTLE MOTHER."—A little girl industriously engaged in washing out her doll's wardrobe furnishes the subject-matter. The bowl stands on a table in front of a part of the window showing at the left. This picture is well composed, and all superfluous objects have been removed, so that attention is directed straight to the figure. There is almost too strong a high-light on the apron, and this light catches the eye first, the lighting of the face being secondary. The opposite should have been the case. The focus on this picture is specially good, it being just soft enough to give roundness to the figure without blurring the outlines.

Plate Speeds for Exposure-Guide on Opposite Page

Class 1/2	Class 1 1/4	Class 2 1/2
Lumière Sigma	Cramer Banner X	Cramer Anchor
Lumière Non-Halation Sigma	Cramer Banner X Non-Halation	Hammer Fast
Class 1	Eastman Extra Rapid	Seed 23
Anso Film, N. C. and Vidil	Hammer Extra Fast	Class 4
Cramer Crown	Hammer Extra Fast Ortho	Stanley Commercial
Cramer Crown Non-Halation	Hammer Non-Halation	Class 5
Cramer Instantaneous Iso	Hammer Non-Halation Ortho	Cramer Commercial
Cramer Inst. Iso Non-Halation	Seed 26x	Defender Non-Halation Plain
Cramer Isonon	Seed C. Ortho	Defender Non-Halation Ortho
Cramer Trichromatic	Seed L. Ortho	Defender Ortho Slow
Defender King	Seed Non-Halation	Hammer Slow
Defender Ortho Inst.	Seed Non-Halation Ortho	Hammer Slow Ortho
Eastman N. C. Film	Standard Extra	Class 8
Ensign Film	Standard Orthonon	Cramer Slow Iso
Hammer Special Extra Fast	Class 1 1/2	Cramer Slow Iso Non-Halation
Imperial Special Sensitive	Lumière Ortho A	Class 12
Imperial Orthochrome Special Sensitive	Lumière Ortho B	Defender Queen
Kodoid	Lumière Panchro C	Seed Process
Magnet	Class 2	Class 100
Premo Film Pack	Cramer Medium Iso	Lumière Autochrome
Seed Gilt Edge 27	Cramer Medium Iso Non-Halation	Lumière Red Label Slow
Standard Imperial Portrait		
Standard Polychrome		
Stanley Regular		

The Round Robin Guild Exposure-Guide For June

COMPILED BY PHIL M. RILEY

UNDER this caption a brief table of exposures will be given in each issue for the guidance of Guild members during the following month. While the figures are indicative only, they will be found approximately accurate for the assumed conditions they have been applied to. If the exposure-times given are not considered imperative, but as suggestions, possibly to be varied slightly at the discretion of the worker, these tables will prove of great benefit to all who use them.

The table below gives the exposures required by the different subjects and plates mentioned during the month of June on any fine day between 9 A.M. and 3 P.M. when the sun is shining brightly and the lens is working at f/8, or U. S. No. 4.

Double the exposure if the sun is obscured but the light is fairly bright, or if f/11, U. S. No. 8, is used; also from 7 to 8 A.M. and 4 to 5 P.M. Treble it when the light is rather dull. Increase it four times when there are heavy clouds and a very dull light, or if f/16, U. S. No. 16, is used. For f/5, 6, U. S. No. 2, give half. From 8 to 9 A.M. or 3 to 4 P.M. increase the exposure one-half. Increase it $2\frac{1}{2}$ times from 6 to 7 A.M. and 5 to 6 P.M. From 5 to 6 A.M. and 6 to 7 P.M. increase it five times.

SUBJECTS	PLATES (List on Opposite Page)											
	Class $\frac{1}{2}$	Class 1	Class $1\frac{1}{4}$	Class $1\frac{1}{2}$	Class 2	Class $2\frac{1}{2}$	Class 4	Class 5	Class 6	Class 8	Class 12	Class 100
Studies of sky and fleecy clouds	1/1600	1/800	1/640	1/512	1/400	1/320	1/200	1/160	1/128	1/100	1/64	1/8
Open views of sea and sky; very distant landscapes; studies of rather heavy clouds	1/800	1/400	1/320	1/256	1/200	1/160	1/100	1/80	1/64	1/50	1/32	1/4
Open landscapes without foreground; open beach, harbor and shipping-scenes; yachts under sail; very light-colored objects; studies of dark clouds	1/400	1/200	1/160	1/128	1/100	1/80	1/50	1/40	1/32	1/25	1/16	1/2
Average landscapes with light foreground; river-scenes; figure-studies in the open; light-colored buildings and monuments; wet street-scenes	1/200	1/100	1/80	1/64	1/50	1/40	1/25	1/20	1/16	1/12	1/8	1
Landscapes with medium foreground; landscapes in fog or mist; buildings showing both sunny and shady sides; well-lighted street-scenes; persons, animals and moving-objects at least thirty feet away	1/100	1/50	1/40	1/32	1/25	1/20	1/12	1/10	1/8	1/6	1/4	2
Landscapes with heavy foreground; buildings or trees occupying most of the picture; brook-scenes with heavy foliage; shipping about the docks; red brick buildings and other dark objects; groups outdoors	1/50	1/25	1/20	1/16	1/12	1/10	1/6	1/5	1/4	1/3	1/2	4
Portraits outdoors in the shade; very dark near objects	1/25	1/12	1/10	1/8	1/6	1/5	1/3	2/5	1/2	2/3	1	8
Badly-lighted river-banks, ravines, glades and under the trees	1/12	1/6	1/5	1/4	1/3	2/5	2/3	4/5	1	1 1/3	2	16
Average indoor portraits in well-lighted room, light surroundings, big window and white reflector	1/4	1/2	3/5	3/4	1	1 1/5	2	2 2/5	3	4	6	48

In order to make the exposures as accurate as possible after the final multiplications, all fractions accompanying whole numbers have been allowed to remain in this table, except when the whole numbers were so large that fractions might be disregarded as negligible. In such cases approximate figures have been given. Shutters will not always give the exact exposure required, but the nearest speed may be used if it is approximately correct. When the nearest speed is too short open the diaphragm a little; when too long, close it a little. Let the exposure be a little too long rather than too short, and the more contrast there is in the subject the more it may be over-timed. Over-exposure, unless excessive, can be controlled in development, but under-exposure will not give a satisfactory negative.



A FEW HONORABLE MENTION PRINTS

From Left to Right : "In the Fells," Ernest M. Astle; "A February Thaw," George Alexander; "Across the Fields," J. H. Field; "A Winter Sketch," T. L. Mead, Jr.; "Gracefully Bending Beneath Their Load," B. V. Sweet; "A Frosty Morning," A. Leonora Kellogg; "Snowbound — The Brook in Winter," H. L. Standley; "A Snowy Morning," E. T. Wood; "The Wood-Path in Winter," William Spanton.

THE CRUCIBLE

A MONTHLY DIGEST OF FACTS FOR PRACTICAL WORKERS

With Reviews of Foreign Progress and Investigation

Conducted by PHIL M. RILEY

Readers are encouraged to contribute their favorite methods for publication in this department
Address all such communications to Phil M. Riley, 383 Boylston Street, Boston

ERRATA

In reporting the new Lumière method of factorial development in our April issue, an unfortunate error was made in the third column of the development table, which we publish below in its corrected form. It will also be noticed that the figures in the first column have been changed. This is due to the fact, not known to us previously, that the Sigma emulsions made in Europe and America are not alike.

DEVELOPMENT TABLE

Temperature 59° to 63° Fahr.

<i>Time required for first appearance of image on Sigma plates Minutes and seconds</i>	<i>Degree of Exposure</i>	<i>Solution to be added immediately after first appearance of image</i>	<i>Total time of develop- ment Minutes</i>
1-55 to 2-5	8 times normal	2 parts A	18
2-6 to 2-20	4 times normal	1 part A	18
2-21 to 2-45	2 times normal	Nothing	15
2-46 to 3-10	Normal	1 part B	12
3-11 to 3-40	$\frac{1}{2}$ normal	$1\frac{1}{2}$ parts B	13
Longer	$\frac{1}{4}$ normal	2 parts B	13

AUTOCHROMES IMPROVED

MESSRS. LUMIÈRE announce that their Autochrome plates have been improved to the extent that only two solutions will be necessary hereafter—the developer and reversing-bath. Methods of manufacture have been made more automatic, thus insuring uniformity, increased production and diminished cost. With the new plates sufficiently brilliant pictures can be obtained without intensification, provided the timing has been correct.

Having exposed the plate in the usual manner, glass side toward the lens, using the special color-screen, remove and develop in:

Distilled water.....	35 ounces
Quinomet.....	60 grains
Sodium sulphite, anhydrous.....	270 “
Ammonia .920	100 minims
Potassium bromide	15 grains

For correct exposure development should last two and one-half minutes at 65° Fahr. Shorten the time of development for over-exposure and prolong it for under-exposure, according to the degree of the error.

On removal from the developer rinse the plate, place it in the reversing-bath made up of:

Water	35 ounces
Potassium permanganate.....	30 grains
Sulphuric acid	30 drams

Then take it into the daylight, when the plate will gradually become transparent and the colors will be visible upon examination. After three or four minutes, when the plate will be completely transparent, remove it from the bath and wash for half a minute in running water.

The plate is now ready for redevelopment in full daylight, using the first developer again. In three or four minutes, when the high-lights will be completely darkened, set the plate up to dry, after which it should be varnished as usual. In cases of over-exposure, where the colors lack brilliancy, intensification may be resorted to as described in the original Autochrome instructions.

KEEPING LENSES CLEAN

SINCE a dirty lens may cause pictures to be poorly defined or foggy, it is necessary to keep it free from dust and moisture. Silk, muslin and chamois-skin have been advised, but Malcolm D. Miller, M.D., suggests that all are inferior to Japanese lens-paper. This paper is so soft that, if clean, it is incapable of scratching even the softer Jena glasses used in anastigmats. It may be obtained from dealers in physicians' supplies, or direct from the Bausch & Lomb Optical Company, or any other good microscope maker. Very gentle rubbing, with or without previous moistening of the glass by breathing on it, is all that is needed to remove foreign deposits, particularly that peculiar greasy veil which sometimes forms. The paper should be carefully protected from dust in a sealed envelope.

PLATINUM DEVELOPER FOR TONING P. O. P.

INSTEAD of throwing away the developer after treating a batch of platinum prints T. Malcolm Walker suggests in *Photography and Focus* that it be kept for toning nearly an equal number of P. O. P. prints. It seems that enough platinum, possibly chloro-platinite, is removed from the paper in development to make this subsequent use possible. Prints toned in this way which have been exposed to all sorts of daylight for two years show no tendency to fade.

PHOTOGRAPHIC PATENTS

Abstracted by PHIL M. RILEY

Printed copies of patents are furnished by the United States Patent Office for five cents each
Address The Commissioner of Patents, Washington, D. C.

March 23, 1909

915,955. PHOTOGRAPHIC PRINTING-FRAME. ARTHUR C. HAYDEN, Brockton, Mass.

This may be used for printing glass plates or roll films in the strip without cutting into sections. Two spools are provided at each end, making two sets, one being used for the film, the other for a series of masks of various sizes and shapes. Proper adjustment of the spools brings any desired negative and mask into register within the frame.

915,988. DAYLIGHT HOLDING-ENVELOPE FOR PHOTOGRAPHIC PLATES. OTTO N. MOORE, Indianapolis, Ind.

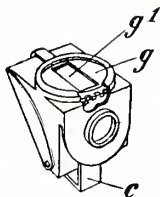
A double paper envelope in which plates are to be inserted at the factory so that they may be loaded into a special holder and removed from it after exposure in daylight as they are wanted. The outer envelope is open at one end and has an exposure-opening in one side. Within this is another envelope open at the opposite end. This covers the plate and acts as a closing-slide for the exposure-opening of the outer envelope. During exposure the inner envelope may be withdrawn far enough to disclose the whole plate, but no more; after which it is replaced, shutting out all light.

916,119. PHOTOGRAPHIC PRINTING-APPARATUS. JOHN A. DICK, Canandaigua, N. Y.

This machine is intended for rapid commercial printing, being so devised that the pressure-board is automatically raised by a spring and then lowered by foot-pressure. Means are also provided to turn on a non-actinic light when the frame is open, and one or more actinic lights when it is closed for printing.

916,205. FINDER FOR CAMERAS. WILLIAM E. SHANLEY, Norwich, Conn.

A reversible finder of the ordinary type, except that the top-plate g with its sight-opening g^1 is rotated by gear-teeth which engage with gear-teeth on a circular disk on the end



of the angle-plate c . This angle-plate is fastened to the lens-board of the camera, and when the finder is rotated on the circular disk in order to use the camera in either horizontal or vertical position, the top-plate g is also rotated so that the opening g^1 corresponds in relative position to the plate or film.

916,236. PRODUCING IMPRESSIONS ON METAL PLATES. CHARLES N. WEST and ALICE M. WEST, San Francisco, Cal.

A process for producing pictures upon plates of steel or iron, consisting in cleaning and smoothing the surface of the plates by means of a compressed-air sand-blast and subsequent brushing with water and emery, coating the plate in a silver plating-bath, subjecting this coated surface alternately to successive applications of hydrocarbon, iodine and bromine vapors adapted to receive impressions, placing the prepared surface in contact with the negative to be printed, exposing to light and then fixing, washing and coating the surface with a protecting varnish.

916,286. CAMERA TRIPOD. WILLIAM C. EVANS, Elizabeth, N. J.

By means of a universal joint consisting of a ball carrying the screw-stud and working within a socket the camera may be tilted to any angle or leveled irrespective of the tripod legs, the adjustment being held by a thumb-screw. An adjustable head above the main head is controlled by a rack and pinion so that the camera may be raised or lowered without disturbing the level or angularity of the camera.

916,316. BACKGROUND SUPPORT. J. A. HOLMES, Chicago, Ill.

This device consists of a rectangular frame with a roller at the top and bottom, both being operated by chains and sprockets from a single hand-crank. Working on these rolls is a long strip of flexible sheet material on which are painted several backgrounds. Any one of these may be brought into position for use by turning the crank. The unequal speed of rotation when one roller is carrying most of the backgrounds is compensated for by spiral springs within the rollers. One end of the spring is fastened to the roller; the other, to the shaft on which it turns.

906,325. PHOTOGRAPHIC FILM-ROLL SPOOL. WILLIAM F. C. KELLY, London, England.

In accordance with this patent the spindles of film-spools are made hollow, of pasteboard or other suitable material, and contain the chemicals necessary for development of the film. The end-flanges close the ends of the hollow cylinder.

916,346. CHRONOMETRIC CAMERA-SHUTTER OPERATING-DEVICE. WM. M. MARTIN and ALBERT P. PETRI, St. Louis, Mo.

This consists of a clock movement readily attached to any camera, which opens the shutter after a predetermined time for which it was set. At the proper moment the release allows a spring-actuated lever to pull a chain connected by a little clamp with the operating-lever of the shutter.

March 30, 1909

916,410. PROTECTIVE DEVICE FOR PICTURE-MACHINES. DONALD J. BELL, Chicago, Ill.

This consists of a fire-proof magazine into which the used film passes after projection, between sprocket and

guard-rollers, which are in such close proximity as to prevent the transmission of the combustion process beyond this line should the film become ignited.

916,467. PROCESS OF PRODUCING POLYCHROMATIC SCREENS. A. and L. LUMIÈRE, Lyons, France.

A process of preparing a polychromatic screen for color-photography, consisting in coloring the entire screen with one of the colors, coating with fatty ink those parts which are to retain this color, removing the color from the parts not coated, coloring the exposed surface with the second color to be used, coating with fatty ink those parts of the second color which are to be retained, removing the color from the parts still uncoated and repeating the same operation for each of the colors to be applied and finally washing away the ink-coatings. Full description in PHOTO-ERA, October, 1908, page 196.

916,616. PHOTOGRAPHIC PAPER. YORK SCHWARTZ, Hanover, Germany.

The object of this patent is to provide a pure white coating to serve as a protecting-layer between the paper and the silver emulsion, in order to prevent deleterious action of the residual chemicals contained in most paper upon the sensitive emulsion. Neutral phosphates of the earths, alkaline earths or of zinc, and more particularly the neutral phosphate of calcium, may be used successfully when mixed with a hindering-means of a sufficiently inactive and resistible character and applied to the raw paper as usual. These salts are practically insoluble in water and alcohol, so that there can be no reaction between the chemicals of the paper and emulsion.

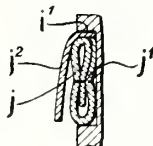
916,751. MOVING-PICTURE MACHINE. HERBERT S. MILLS, Chicago, Ill.

The object of this invention is to facilitate the feeding of the film under the intermittent movement by providing to coöperate with means on the machine for tautening the film where it traverses the lens, and means operating to free the film with each action of this movement.

916,788. FILM-WINDING MECHANISM FOR KINETOSCOPES AND THE LIKE. HENRY K. SANDELL, Chicago, Ill.

A mechanism providing for the use of an endless film wound in layers about a series of rolls arranged around an axis and having an unwound loop-portion.

916,911. PHOTOGRAPHIC PLATE-HOLDER. LOUIS BORSUM, Plainfield, N. J.



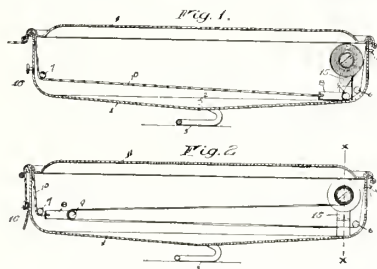
This invention comprises an improved means of protecting from light the plate within the holder when the slide is drawn for exposure of the plate, and also novel means for locking the plate in its receptacle in the holder. The former consists of a piece of dark cloth woven from hard-twisted yarns folded as indicated and stitched at j^1 . The loose end j^2 presses against a single thickness of cloth attached to the

opposite side of the slide-opening of the holder. The inherent resiliency of the cloth carries it into contact with the cloth-faced wall opposite, as the slide is removed. The means for locking the plate in the holder consists of two oppositely-disposed wooden wedges which, when brought together by a sliding knob outside the holder, forces the locking-bar against the edge of the plate.

April 6, 1909

917,002. DEVELOPING-APPARATUS. FREDERICK F. CHURCH, Rochester, N. Y. Assignor to Eastman Kodak Co., Rochester, N. Y.

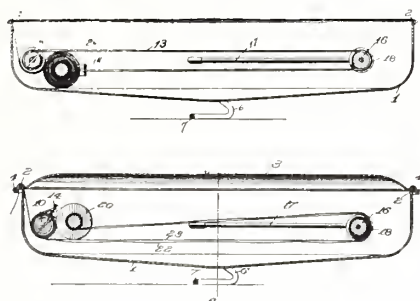
This device for developing and fixing roll-film does away with the necessity for a transfer-hox or celluloid apron, one metal receptacle arranged as shown in section and about half the length of a strip of film being the only requirement. The whole device is pivoted at 2 on a base 3 so that it may be rocked during development. At one end of the receptacle



is placed the usual holding-device in which the spool of film is placed. The end of the paper film-hacking is brought down through the aperture in the yoke 8, around the rollers 9 and 6, and fastened at 12. The solution is then poured into the receptacle and the light-tight cover put on, after which the cord 10, passing around the guide-roller 7, is pulled, unwinding the film in a loop, as shown in the second figure, with its sensitized surface out of contact with all parts of the apparatus. A fastening for the cord is provided at 16.

917,078. PHOTOGRAPHIC FILM DEVELOPING-APPARATUS. ROBERT KROEDEL, Rochester, N. Y. Assignor to Eastman Kodak Co., Rochester, N. Y.

This device is much like that already described, the essential difference being that instead of withdrawing the film



from a stationary spool, the spool itself is drawn from one end of the receptacle to the other and back again, unrolling the film as it goes. In this case a yoke 14 is attached to the

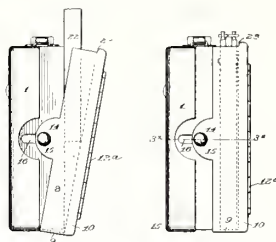
film-spool and the end of the paper film-backing fastened at 2 between the rim and cover of the receptacle (first figure). A cord is attached to the yoke 14, and this is passed around the rollers 16 and 10, the latter being operated by a crank outside, which, when turned, draws the spool around the roller 16 and back to the upper side of the roller 10, when the film is unrolled as in the previous invention (second figure).

917,079. FOCUSING-DEVICE FOR CAMERAS. ROBERT KROEDEL, Rochester, N. Y. Assignor to Eastman Kodak Co., Rochester, N. Y.

This device consists chiefly in a means for securely fastening the lens-board carrier of cameras, more especially Kodaks, to the track which is moved forward and backward by the rack and pinion for focusing. The track has a serrated edge which is engaged by a pin on the short inner end of the spring-actuated lever of the automatic clamping-device when it is released after drawing out the lens-board to approximate focus. Another feature is a rack and pinion for adjusting the rising and falling front.

917,135. CAMERA. JOHN A. ROBERTSON, Rochester, N. Y. Assignor to Eastman Kodak Co., Rochester, N. Y.

A camera intended for plates or film-packs, the chief advantage being its compactness, due to metal construction and



the telescoping of the back portion on the body, as indicated, when the plate-holder is removed.

917,136. PHOTOGRAPHIC FILM-PACK. JOHN A. ROBERTSON, Rochester, N. Y. Assignor to Eastman Kodak Co., Rochester, N. Y.

The improvements in this patent are directed chiefly to the devices for excluding light and bringing the films successively into the focal plane. A partition 11 and flange 14



divide the receptacle as usual into an exposure-chamber 12 and a dark chamber 13. Springs 24 press against the films 20 so that the outermost one is always in the focal plane. After exposure it is drawn into the dark chamber over the rounded end 15, the strip of pile-fabric 16 forming a light-seal, as does also a similar strip 17 where the operating-tab 28 protrudes from the receptacle.

917,310. SELF-DEVELOPING PHOTOGRAPHIC SURFACE. WM. F. C. KELLY and JOHN A. BENTHAM, London, England.

In accordance with this patent a concentrated, thick, semi-fluid developer containing a borate preservative and

gum or other colloid is coated on the back of plates or films and allowed to dry. When these are immersed in water the backing is dissolved and a developing-solution is formed. To secure flexibility when films are to be coated the quantities of all the ingredients except the gum are quadrupled and small quantities of gum-arabic mucilage, glycerin and sufficient water are added. To secure greater keeping-qualities the reducing and alkaline chemicals may be kept separate and coated on adjacent areas of the plate or film. Potassium bromide may also be applied separately and wiped off before development if not needed.

917,418. METHOD OF TREATING PHOTOGRAPHIC PAPER. EDWARD A. CUNNINGHAM, Ambridge, Penn.

In U. S. Letters Patent No. 895,970 a process was described for changing the color of a blue-print to dark brown and making it available to print from as a negative. By means of the present method such a print may be restored to its original blue state. The print is first treated with a solution of ammonia, which removes the metal deposited by the process described in the earlier patent and changes the ferrous salts to an oxide. The print is then washed and transferred to a solution of potassium ferrocyanide acidified with hydrochloric acid, which changes the ferric oxide to ferric chloride. This is then immediately precipitated by the cyanide as ferrous ferrocyanide (Prussian Blue). The print is then treated with a solution of potassium bichromate, which easily gives up oxygen, after which it is washed and dried.

917,696. PRINTING-FRAME. CYRUS E. WELTMER, Nevada, Mo.

This invention provides a wide range of adjustment of plates, cut or uncut films, while in the printing-frame, as well as masks which will take any position given to the negative. The frame consists of front and back members hinged together so that they may be separated without detachment from each other when adjusting the negative and paper or held together for printing by clamps at the corners. In the back member a spring-actuated rectangular shutter is provided, which opens automatically when released, under which the printing-paper is fed, the shutter being closed over each piece to bring the paper in contact with the negative and hold it there.

917,697. MOVING-PICTURE MACHINE. D. C. WOODWORTH, Chicago, Ill.

The chief advantages of this machine are a mechanism for holding the film so that it comes in contact with the machine only along its edges, thereby obviating all danger of injury to the picture-surface of the film, and also an arrangement of the door supporting the objective lens so that it may be swung outwardly.

917,727. CYLINDER-ROLLER FILM-STEADIER FOR MOVING-PICTURE MACHINES. JOHN L. HAMMOND, Macon, Mo.

This device is intended to prevent quivering of the image on the screen by ensuring a steady pull on the film in one direction. It consists of two soft rubber rollers, between which the film must pass, located between the feed sprocket-wheels at top and bottom. The hearings of one roller are spring-actuated so that it bears firmly against the other roller, thus preventing any unnecessary movement of the film and at the same time not preventing its free feeding.

NOTES AND NEWS

Announcements and Reports of Club and Association Meetings, Exhibitions and Conventions
are solicited for publication

A MODEL ORGANIZATION

THE amount of intelligent, conscientious and effective work performed by the presidents of the Professional Photographers' Society of New York is prodigious. We look back over the many years of activity of the national organization and fail to find an example of strenuous and beneficent effort in the interests of the professional worker such as has been furnished by men like Pirie MacDonald, Dudley Hoyt and A. F. Bradley, who have served in turn as heads of the great New York State body. And to think that this great and noble work has been accomplished by these officials without compensation, of any kind, excepting the privilege of benefiting their brother photographers! The situation in New York State particularly has required men of strong caliber, courage, resourcefulness and influence. Although very scarce, they were found, and well have they fulfilled the tasks undertaken. The victories which they have won in the service of the society have proved a source of inspiration to others, and we find that President Barrows, of the National Association, is prepared to give the Association, of which he is the chief executive, the best effort of his life. Mr. Barrows is determined to show to the members of the P. A. of A. that improvements necessary to the existence of the national body can be accomplished successfully. He has been very active since his election in the interest of the work which he has laid out, and there is little doubt that he will make a record as brilliant as that which has distinguished the official terms of presidents of the New York State organization.

THE WOLLENSAK CATALOG

PHOTOGRAPHIC lenses and shutters have rarely been described more attractively than in the 1909 catalog of the Wollensak Optical Co., Rochester, N. Y. This neat little booklet announces a great many things which no photographer should be ignorant of, and we suggest that every one of our readers procure a copy, mentioning PHOTO-ERA when doing so. The Velostigmat lens is of especial interest.

A PHOTOGRAPHIC TREASURE-TROVE

Harper's Magazine for May features the story of Rothenburg, the quaint and picturesque mediæval city situated on the Tauber, in Bavaria. It is delightfully told and finely illustrated, and should be read by every camerist, whether or not he intends to visit the Dresden Exposition this summer. Rothenburg, this particular one, offers more fascinating camera-pictures to the pictorialist than, probably, any spot on earth.

CAMERA CLUB OF NEW YORK

REGULARLY, each week, during the season just closed, this, the foremost camera club in the East, has given its members and friends entertainments of the highest character. The committee in charge deserves great credit for the admirable work performed. An exhibition by the Century Company of drawings and paintings, together with prints showing the successive stages of reproduction, from the originals to the final illustrations as they appear in the *Century Magazine*, was held in the exhibition-hall April 26 to May 15, and proved very instructive. At a meeting of the Board of Trustees held April 6 it was unanimously decided to reinstate the initiation-fee for active members on and after July 1, 1909.

CHICAGO CAMERA CLUB

AMONG its excellent weekly entertainments given during the season recently closed, none proved more interesting and profitable than a lecture, April 8, on "Composition," by Mr. John F. Stacey, president of the Chicago Society of Artists and member of the Salon Committee. The accompanying demonstrations added greatly to the value of Mr. Stacey's address. Reference should be made also to an informal talk, April 1, about landscape studies in carbon by Mr. Carl W. Townsend, a recognized authority on this, the elusive yet delightful process.

THE 1909 SENECA CATALOG

THE Seneca Camera Manufacturing Co., Rochester, N. Y., has just issued one of the most attractive photographic catalogs we have seen. It describes the superb line of Seneca cameras and accessories, which are many and varied. Every worker who contemplates an addition to his outfit should have a copy, which will be mailed on request.

AN AUTOMOBILE SPEED-RECORDER

THE first conviction of an overspeeding autoist by means of an automobile speed-recorder, involving no measured "road-trap" or the use of a stop-watch, was secured, April 30, in the Roxbury District Court, when the speed-recorder which is the joint invention of Dr. Herbert T. Kalmus and Dr. Daniel F. Comstock, instructors at the Massachusetts Institute of Technology, had its initial test before a judge. It won so signal a victory that this new method will probably supersede all others in use at the present time. With this device all an officer has to do is to step out behind a receding car which he thinks to be going too fast, aim his instru-

ment at it and press a lever on the side of a small box which resembles a camera. This box is about 7 x 7 x 3 inches over all, and in reality consists of two cameras, one above another, with a single plate covering both lenses. Suitable mechanism is provided so that when the operator presses the release lever a picture of the moving body is taken automatically by one of the lenses and, approximately one second later, another picture is taken by the other lens. These two pictures appear on the same plate, as shown in the accompanying reproduction.

Immediately in front of the plate is a chronograph so placed that it casts the shadow of its hand on the plate. The mechanism, which is put into operation by the lever which the operator moves, first starts this chronograph and, after an extremely short interval of time, makes the first exposure. This watch is started in such a position that a shadow of the hand appears on the picture taken by the first exposure. Approximately one second later, the hand of the chronograph has passed through an arc of 180 degrees and, consequently, casts its shadow upon the second picture. The time between these two exposures is definitely and accurately known from the position of these two shadows on the plate. This furnishes a complete record of all that is needed to calculate the velocity of the moving body—in this case, the moving automobile.

If the size of the image and the distance of the image from the lens are known, the distance of the object from the lens may be calculated by simple laws of arithmetic. This may be done for the object in each of its positions, as shown on the plate. That is to say, the length of the wheel-tread of the image is measured directly on the plate by means of a carefully-made steel scale, if necessary, with the aid of the microscope. The size of the object is regarded as the standard width of this tread, which is a known constant for any given automobile. The distance of the image from the lens is experimentally determined by the focal length of the lens, and the distance of the body from the lens, which is desired, is a simple function of these first three quantities. The difference between the distance thus indicated for the first and second positions of the object is the distance that the moving object has moved in the time indicated by the chronograph; hence, the velocity is known with a high degree of accuracy.

This new instrument should be welcomed alike by autoists and police-officials; for, on the one hand, it offers a simple method of determining the speed of the automobilist and, on the other hand, one absolutely free from the personal element; i.e., it offers positive proof to the autoist of his actual speed, independent of the word of any of the police-officials or of the personal element entering into stop-watch measurements operated by the hand. The instrument is light, as well as small, the particular model with which the first conviction was made weighing approximately three pounds.



A SPECIMEN PHOTOGRAPH MADE WITH
THE AUTOMOBILE SPEED-RECORDER

THE P. A. OF A. CONVENTION

PREPARATIONS for this momentous event to be held at Rochester, N. Y., July 19 to 24, go on apace, and there is every reason to believe that President Barrows's laudable but arduous undertaking of amalgamating the interests of the State associations may be effected in Rochester, this year. Thus far the idea seems to meet with widespread endorsement and hearty support. To create a universal brotherhood, which shall in time include the majority of the professional photographers of the United States and Canada, seems a big undertaking, but it is not impossible or improbable. All that is needed is the earnest and self-willed intent of the best minds of the profession. Canvassing among members for opinions has demonstrated that action is both wise and expedient. It has, therefore, been decided to start the movement, which President Barrows and many others hope will culminate in a perfect working congress of photography.

This plan will in no wise interfere with the State societies; but, on the contrary, it will tend to strengthen and increase them, as with such an organization no one could become an active member of the P. A. of A. unless he held credentials from his State society. All others would be associate members, but would be deprived of none of the privileges except that of voting.

The legislative work could then be conducted by delegates from the State associations elected or appointed by their respective societies. In order that this plan may have a proper test, President Barrows is placing this matter before each State society, asking for delegates who will assemble at Rochester for the purpose of approving a future plan of action. Their report will then be placed before the convention for consideration. The Ohio-Michigan Association and the Professional Photographers' Society of New York have already approved the plan and appointed delegates to the congress, and the same invitation to do so will be advanced to all organized bodies of professional photographers before the date of the Rochester convention.

The Canadian Association has abandoned its meeting for 1909 and will attend the Rochester convention in a body, besides having supported the new plan and appointed its delegates.

The congress will meet apart from the convention, this demonstrating the wisdom of a delegated body for legislative action in the interest of photographers, generally. Although acting independently of the convention, it will report its deliberations to the P. A. of A. for amendment or adoption.

It must not be thought, however, that law and organization are to be the only features of the 1909 convention. On the contrary, there are so many plans for the pleasure and benefit of all who attend that it is proving difficult to work out the week's program. The School of Photography will again be conducted by the foremost men of the profession, under the leadership of Ryland W. Phillips, of Philadelphia. The pic-

ture exhibit, this year, is to be complimentary. This one feature of convention week is to prove the contending opinion of prizes. So many prominent photographers are promising to send their best efforts that it is almost an assured fact that the Rochester exhibition will be one of the best and most attractive collections in recent years. As the pictures are to be catalogued, the officers must know the intentions of exhibitors at an early date. Every member should be loyal to his association and write Mr. A. T. Proctor, Huntington, W. Va., of his intention to send from four to six of his best pictures, neatly framed, so that the art gallery of 1909 may be one worthy of pride. All pictures are to be hung by States, to show what State organization can do in promoting State pride.

The women of America are to be given a distinction, this year, by exhibiting collectively. Enough signatures have been received to warrant the success of this innovation; but the women must become interested to make the best possible showing, and, with their assured cooperation, success is certain.

One day of the week will be given over to Rochester's manufacturing interests, which are many and varied. Every one may choose for himself where he can most profitably spend the day. All the principal firms are making plans to give callers a hearty welcome. The Eastman Kodak Co. has been granted one night to entertain members of the Association, and it is certain that any one who stays away will miss a very pleasant occasion.

Railroad rates, one fare going and three-fifths fare returning, have been granted to members on the certificate plan — an encouragement for all to attend. The headquarters of the convention have been located at the Hotel Seneca, a new and modern hotel, first-class in its appointments, and near to the convention hall. Write in advance and secure accommodations. There are other first-class hotels which offer special rates, including the Eggleston, for men only.

PHOTOGRAPHIC CLUB OF BALTIMORE

AMONG the camera clubs which have shown commendable activity, this season, is the Photographic Club of Baltimore City. Its interchange exhibits at various clubs have been of an unusually high order of merit. It has furnished its members with many high-class entertainments, none of which was received with greater favor than the lecture, April 27, on the "U. S. Flying-Machine Test at Fort Meyer," delivered by C. H. Claudy, Washington, D. C.

A DOUBTFUL SALE

ACCORDING to an advertisement in a photographic cotemporary a "Sutter" lens and No. 3B "Dahlmyr" lens are for sale. If the names of the makers are to add weight to this advertisement, we fear that inquiries will be few; for, correctly spelled, the names of these makers should read "Suter" and "Dallmeyer."

The American Federation of Photographic Societies

An organization for the advancement of pictorial photography, encouragement of pictorial workers, and the development of new talent.

OFFICIAL ORGAN: PHOTO-ERA

President: GEORGE W. STEVENS, Toledo Museum of Art, Toledo, O.
Vice-President: JOHN F. JONES, 934 Ash St., Toledo, O.
Secretary: C. C. TAYLOR, 3236 Cambridge Ave., Toledo, O.
Treasurer: GEORGE W. BEATTY, 1629 Nicholas Bldg., Toledo, O.
Historian: WM. A. RHEINHEIMER, 1222 Clara Ave., St. Louis, Mo.

THE new officers of the Federation held an important meeting early in April to discuss plans for an active campaign for the Sixth Salon. A new set of "conditions" was formulated, new Commissioners for Foreign Countries were appointed and many measures adopted which, within a few years, should make the American Salon a truly representative one. It will be the aim of the officers to raise the standard; and to do so they must have the hearty cooperation of every pictorialist and every one who is interested in the photographic art. This is hereby invited.

It is hoped that PHOTO-ERA readers, particularly, will feel that they are closely identified with the Salon movement and that their assistance is desired and needed. If those who, in the past, have done so much to assist in beautifying the pages of PHOTO-ERA would contribute as liberally of their pictures, support the Federation as heartily and, when possible, interest other photographers in it, it would assist very materially in bringing about the desired result.

Having a man at the helm who is well and favorably known in the art-world, one who has had experience in managing valuable exhibitions and who will give all the time necessary to Federation affairs, will prove a great assistance in getting into line those pictorialists who have hitherto held aloof from the several Salons, or who have, of late, shown but little work.

CONDITIONS GOVERNING THE SIXTH SALON

1. Entries must be sent to the American Federation of Photographic Societies, care Museum of Art, Toledo, O., to arrive not later than Oct. 1, 1909.
2. Entries from foreign countries must be in the hands of the Commissioners of each country not later than Sept. 1, 1909. Accepted entries will be framed at the expense of the Federation.
3. All prints submitted will be passed upon by a jury composed of artists of note, and several directors of Museums of Art in the United States.
4. Each entrant may submit any number of prints, but not over six (6) prints by any one person will be finally accepted by the jury.
5. No work will be accepted which has been hung in former Salons conducted under the auspices of the Federation.

6. All prints hung in the Salon must be suitably framed. Prints may be submitted to the jury framed or unframed. In the latter case they will be framed at a very moderate charge under the supervision of the Salon Committee, at prices ranging from fifty cents (\$0.50) to one dollar (\$1.00).

7. On the back of each print or frame submitted must be affixed a slip bearing the name and address of the entrant and the title of the picture.

8. A list of titles must be sent separately, by mail, to the secretary of the Federation, giving the name and address of the sender, and price of each print, if for sale.

9. Each entrant must pay the expense of transportation of his or her prints to and from the city in which the Salon is assembled. Pictures will be returned to owners at the end of the exhibition season.

A commission of fifteen per cent (15%) will be charged in case of sales.

FOREIGN COMMISSIONERS

Foreign Commissioners have been appointed as follows to receive entries from their respective countries:

Mr. H. Snowden Ward, London, Commissioner for England; Herr R. Dührkoop, Hamburg, Commissioner for Germany; Herr A. van Dijk, Amsterdam, Commissioner for Holland; Dr. Cesare Martini, Genoa, Commissioner for Italy; Herr Ferd. Flodin, Stockholm, Commissioner for Sweden; Herr Ingenior Brodersen, Copenhagen, Commissioner for Denmark; Mr. A. Hill Griffiths, Sidney, Commissioner for Australia.

The Commissioner for France will be appointed later.

BOSTON CAMERA CLUB

Two excellent exhibits graced the walls of this club during April. The Portland (Me). Camera Club showed about forty prints of its Eleventh Annual Salon, which, though interesting, were not quite up to its well-known high artistic standard. Prints of conspicuous merit were by H. A. Morton ("Nick" and I); G. E. Fogg, A. P. Howard, J. R. Peterson, F. A. Keirstead, F. W. Shaw and C. M. Jaquith — landscapes; W. B. Post — winter-scenes; C. F. Berry (head of elk); B. W. Guppy ("A Snarl"), and S. S. Skolfield — marines, landscapes and street-scenes.

The Chicago Camera Club sent an Interchange exhibit of about sixty prints by R. E. Weeks, Geo. C. Elmberger, George Alexander, C. W. Christiansen, B. J. Morris, F. M. Tuckerman, D. H. Brookins, Herbert S. Troyer, Paul Wierum, Wm. B. Moore, and F. W. Morgan — all representative of the work of these successful camerists.

An especially interesting feature during the early spring was an illustrated talk on the trip of the American battleship fleet around the world, by H. R. Jackson, Chief Petty Officer of the U. S. Battleship *Vermont*.

WITH THE TRADE

A SHOE FOR THE CAMERIST

IN view of the vast amount of tramping to be done by camerists this season, both at home and abroad, it is deemed desirable to invite the attention of PHOTO-ERA readers to a really admirable shoe, one which is authoritatively endorsed. We refer to the Worth Cushion Sole Shoe, advertised in this issue. Among its advantages is that it is easy on the foot *at the start*, and needs no breaking in. It excludes dampness, keeps the foot cool and dry and makes walking a pleasure. The camerist afield will appreciate all this, and will provide himself in advance.

ARTURA RESULTS

THE Artura Photo-Paper Company, Columbus, O., has the Seventh Edition of its booklet "Results" ready for distribution, and is sending it, free, to any address.

This is a 52-page booklet, containing directions for handling the different brands of Artura and many valuable suggestions in regard to the developing-process. It is a complete Artura Manual, and the contents are indexed, making it a handy and useful reference-book. Results are what the photographer wants, and this booklet is designed to assist him in producing them.

Write for a copy to-day. A postal will bring it to you.

A NEW DEVELOPER

PINCTOL, the new developer, invented and made by G. W. Leach, Jr., of Wilkes-Barre, Penn., is a product worthy the attention of both professional and amateur photographers. Those familiar with it are enthusiastic. Used alone it gives brown tones on contrast gaslight papers, from all grades of negatives, unsurpassed by other methods, and without the troubles incident to bleaching and redeveloping, and giving results to please the most exacting taste. Combined with Edinol or Ortol it makes a black developer of charming quality and, in many respects, unequaled for plates and lantern-slides. Another merit: Pinctol is not poisonous.

A PROFITABLE OPPORTUNITY

AMATEURS who are authors of attractive pictorial subjects, such as landscapes, photographs of children or young women, and desire to turn them to profitable account, will be glad to know that the Arthur Studio, of Detroit, is prepared to purchase, for cash, such negatives, or the right to use them in a limited way. They may rest assured that Mr. Arthur has a high reputation for fair and square dealing, and all persons interested are recommended to communicate with him without delay. Please see his notice among the classified advertisements.

MENNEN'S TOILET POWDER

MENNEN'S Borated Talcum Powder lays claim to being the most perfect powder on the market, both in materials and method of manufacture. It is the oldest of Talcum Powders put up for general use, and has established itself on its merits in every quarter of the civilized world.

The woman who buys Mennen's for toilet use or any other purpose may rest assured that she is getting the purest and most perfect powder that chemical knowledge can originate or skill manufacture.

A PLEASANT DIVERSION

DURING the summer months there are few places in the Hub where the photographer, professional or amateur, can be more agreeably entertained than at the Bijou Dream. Features, found nowhere else, are stereopticon-views of prize-photographs, short lectures and popular songs illustrated by high-class lantern-slides, also moving-pictures that are a joy and not an infliction. The auditorium is kept delightfully cool, the location is central and the price of admission is not to be considered.

A PAYING STUDIO AT A BARGAIN

HERE is a *bona fide* offer. A studio with its entire working-equipment, situated near Saranac Lake, a well-known health and pleasure resort, is for sale. The owner, for reasons of declining health, must seek a change of climate. He is looking for a cash customer, at once. The business is good all the year round, has an excellent reputation and presents a fine opportunity to the right person. Address A. N. Allen, Saranac Lake, N. Y. See classified advertisements in this issue.

THE ARISTO EAGLE

OUR reference last month to the beautiful and refined appearance of the Eastman Kodak Company's publication, *Studio Light and The Aristo Eagle*, moved a member of our editorial staff to perpetrate an excusable pun. Said he, "*The Aristo Eagle* was well enough before, but now it looks quite aristo-cratie."

BARROWS TO PLACE AGFA GOODS

THE many friends of Mr. George L. Barrows, who has been associated with the photographic trade for the past fifteen years, will be pleased to hear that he has secured the management of the photographic department of the Berlin Aniline Works, American distributors of the well-known Agfa products.

Mr. Barrows expects personally to visit the trade throughout the country, and looks forward to a generous complement of orders.

\$2,000 FOR PHOTOGRAPHS

AMONG the most important uses to which photography has been put is advertising. Its first application in that direction was simply in showing the goods. To-day a glance through any of the leading magazines will forcefully present the fact that it not only shows the goods, but shows how they may be used. It attractively presents their advantages to prospective customers.

Improved methods of coloring the photographs without overdoing it and without taking away the photographic effect, combined with recent advances in three-and four-color half-tone process work, have made photography available not only for black and white, but for cover-designing, for catalog-work, for back covers of the magazines and for hangers.

It is the theory of the Eastman Kodak Co. that when a photographer makes as good a *picture* as a painter, his product is, barring the possibilities of economical reproduction, worth as much as the painter's. And so, in announcing its Kodak Advertising Contest for 1909, the prizes are most liberal. It is hoped in these contests not merely to obtain good, live material for advertising-purposes, but to help interest the photographer in the illustrative side of his work. But if he is to make a success of his work, it is obvious that it must have something more than mere technical excellence. It must have originality, initiative. It must tell the old story in a new way, a way that will attract, convince. It's not merely photographs which prizes are offered for; it's *ideas as interpreted by your camera*.

Photographic advertising is interesting work, and likely to be highly profitable. Begin now thinking it over, and before October first tell, *through your camera*, how you would sell Kodaks or Brownies or increase the general interest in the Kodak habit.

The following terms and suggestions have been issued by the Eastman Kodak Co.:

TERMS

1. Each picture is to contain a figure or figures, and is to be suitable for use as an illustration in advertising the Kodak or the Kodak system of amateur photography.

2. Each print in Class "A" must be from a negative 5 x 7 or larger. Each print in Class "B" must be from a negative 4 x 5 or 3½ x 5½ or larger.

3. *Prints only* are to be sent for competition — not negatives.

4. Prints must be mounted, but not framed. (Mounts should show about one-inch margin.)

5. No competitor will be awarded more than one prize. (This does not prevent a competitor from entering as many pictures as he may desire.)

6. Due and reasonable care will be taken of all non-winning prints, and, barring loss or accident, they will be returned to their owners at our expense, but we assume no responsibility of loss or damage.

7. The negatives from which all prize-winning prints are made are to become the property of the Eastman Kodak Co., and are to be received by

it in good order before payment of prize money is made.

8. Contestants who are awarded prizes must also furnish to us the written consent of the subject (in the case of a minor, the written consent of a parent or guardian) to the use of the picture in such manner as we may see fit in our advertising.

9. All entries should be addressed to Eastman Kodak Co., Advertising Department, Rochester, N. Y.

10. In sending pictures, mark the *package* plainly, "Kodak Advertising Contest," and in the lower left-hand corner write your own name and address. Then write us a letter as follows:

*I am sending you to-day by Express
 Mail
charges prepaid prints. Please
enter in your Kodak Advertising Competi-
tion, Class.....*

Yours truly,

Name.....

Address

11. The name and address of the competitor must be legibly written on a paper and enclosed in a sealed envelope in the same package in which the prints are forwarded. There is to be no writing on prints or mounts.

12. We will promptly acknowledge the receipt of pictures, and when awards are made will send each competitor a list of prize-winners.

13. Only recognized professional photographers conducting a studio will be allowed to compete in Class "A." Class "B" is open to all photographers not in above classification.

14. This contest will close Oct. 1, 1909.

THE PRIZES

Class A.— Professional Photographers only. Negatives 5 x 7 or larger.

First Prize	\$500.00
Second "	400.00
Third "	250.00
Fourth "	150.00
Fifth "	100.00
	—————
	\$1,400.00

Class B.— Amateurs only. Negatives 4 x 5 or 3½ x 5½ or larger.

First Prize	\$300.00
Second "	150.00
Third "	75.00
Fourth "	50.00
Fifth "	25.00
	—————
	\$600.00

SUGGESTIONS

The jury will be instructed to award the prizes to those contestants whose pictures, all things considered, are best adapted to use in Kodak (or Brownie Camera) advertising.

As reproductions of the pictures will often be in small sizes, too much detail should not be introduced.



Pictures for reproduction should be snappy — vigorous, for they lose much by the half-tone process. Where apparatus is introduced, it must be up-to-date. If you have n't the goods, you can borrow.

There may be possibilities in introducing the Kodak Film Tank idea.

It is highly probable that we shall want to secure some negatives aside from the prize-winners. In such cases special arrangements will be made.

THE JUDGES

The jury of award will consist of photographers and of advertising-men who are fully competent to pass upon the work submitted. Full attention will be paid, therefore, to the artistic and technical merit of the work, as well as to its strength from an advertising-standpoint. The names of the judges will be stated later.

WALLACE JOINS CRAMER FORCES

THE G. Cramer Dry-Plate Company of St. Louis takes pleasure in announcing the addition to its staff of Mr. R. James Wallace, F.R.A.S., F.A.P.S., etc., the noted photographic investigator. Mr. Wallace comes direct from the Yerkes Observatory of the University of Chicago Faculty, leaving the position which he occupied there as head of the Department of Photo-physics to undertake the direction of the factory research laboratory.

The possession of a thoroughly equipped chemico-physical research laboratory devoted especially to this work, and one which is probably unequaled by any other in this country, guarantees the quality of test to which new products will be subjected, while the published work and prior commercial experience of the Cramer experts in trichromatism and general photo-engraving assure intelligent consideration of the needs of the large and constantly increasing number of workers in these lines of business.

Consultation upon special technical matters connected with the photography of light and color will always receive prompt and careful consideration.

WHY USE ISOCHROMATIC PLATES?

THE answer to this question is found in the winning prints of the Cramer Prize-Contest announced in the March PHOTO-ERA. Every brand of Cramer plates is second to none for the purpose intended; but when color-values are important isochromatic plates are essential. It was in order to collect a handsome set of negatives which would prove this convincingly that the contest was conducted. The results were highly gratifying, as may be readily imagined after examining the second-prize entry, by H. W. Spooner, reproduced above. At the left is seen the lack of texture, gradation and the similarity in color-values of most of the flowers which resulted from using an ordinary plate. To the right are shown the same nasturtiums photographed on an isochromatic plate. They are so realistic in the original print that one almost feels an impulse to touch them. They become almost stereoscopic because of the great variety of tones recorded. The values are so accurate that color is almost suggested. It is here readily seen that the flowers were of several shades, although the reds, oranges and dark yellows were all rendered much alike by the uncorrected plate. What is true here also holds good in landscape and other work, although sometimes not so apparent; but the serious pictorialist cannot afford to ignore the importance of correct color-values even in views outdoors. In fact, as has frequently been stated in PHOTO-ERA, the camerist with artistic aims in view will do well to adopt a double-coated color-corrected plate and use it for all ordinary work; thus, from long acquaintance, becoming familiar with its possibilities and the best manner of working it.

A PHOTOGRAPHIC REFERENCE LIBRARY

DURING the past few months we have several times mentioned the "Complete Self-Instructing Library of Practical Photography," which promised to be the leading photographic reference-work in America. From time to time we have been receiving the books as they came from the press, and now have the whole set at hand.

Our March issue contained a complete outline of the entire library, but, in accordance with our usual custom, we preferred thoroughly to examine the matter presented in its pages before expressing our opinion. Careful perusal shows our first impression to be justified, and we are now prepared to endorse this set of books most heartily to photographers at large. It will prove of the utmost practical value to the absolute tyro, the student in photography and the practitioner. It would certainly be a good investment for the latter to purchase the work for the use of his employees when troubles are experienced. On the other hand, the student and beginner will at once realize the benefit of having a ready solution for all his difficulties, as well as an able treatise on every important step in photography, the whole being bound in handsome, uniform style and indexed for quick reference. It brings all the information he now has in small books, clippings and notes into compact and systematized form, where it will be an ornament to any bookcase. Certainly the price is low when one considers all these facts.

Every one of the many subjects covered, from the incipient stages of film picture-taking to color-photography and those other processes more particularly known to and, until recently, the pride of the professional, are clearly explained by detailed instructions and precise illustrations. Moreover, all this information is the result of practical experience. Theorizing appears to have no place in this library.

While it is scarcely to be expected that a work of this magnitude will be entirely free from errors, especially in its first edition, there is on the whole remarkably little to which we would take exception; and, summing up our opinion, we are willing to be quoted as saying that the work will be of immense value and assistance to all who at any time, or at any period, have recourse to the use of the camera or the making of pictures by photographic means.

Write to-day, mentioning PHOTO-ERA, to the American School of Art and Photography, Scranton, Penn., for a copy of the illustrated prospectus and terms.

EXPOSURE-METER FRAUDS

WITH the advent of summer the practice of amateur photography is at its height. Then the manufacturer of amateurs' supplies and accessories reaps his harvest. Among such articles are exposure-meters, of which several kinds are on the market, but of varying degrees of merit. Of the cheaper variety there are two which we do not permit to be advertised in this magazine because

of the dishonest business-methods of their makers, and it is well known that we aim to protect our readers against swindlers. When in doubt, write to us.

Those desiring to procure a reliable exposure-meter at low cost will make no mistake in deciding in favor of F. M. Steadman's invention advertised in this issue. Mr. Steadman is a widely-recognized authority on the subject of exposure and light-values, a man of well-known business integrity, and his specialties are eminently reliable.

MR. DÜHRKOOP THE HOST

WORKERS who contemplate a visit to Dresden under the auspices of the Boston Travel Society will be interested to learn, first, that if they cannot leave with the advertised party, the society has several other parties at low prices, details of which it will be glad to send on request; and, second, that, if the size of the party warrants, Mr. Dührkoop will arrange receptions at the American Embassy and also by the Mayor of Berlin; likewise, a reception by the Mayor of Dresden. The Americans will also share in a dinner and other honors to be tendered to the visiting photographic societies at Dresden. Mr. Dührkoop assures the editor of PHOTO-ERA that everything in his power shall be done to make the visit of the American camerists a thoroughly delightful event. He himself is one of the guarantors of the Exposition, and is bubbling over with enthusiasm in anticipation of a large number of visiting camerists from America. No matter how many come, or the number of parties, societies or delegations, he is prepared to give them all a hearty welcome and perform the part of a delightful, generous host.

A most noteworthy itinerary has been prepared, and one at exceptionally low cost, so that it should be possible for the average camerist to undertake this, the journey of a lifetime.

JOHN L. YATMAN

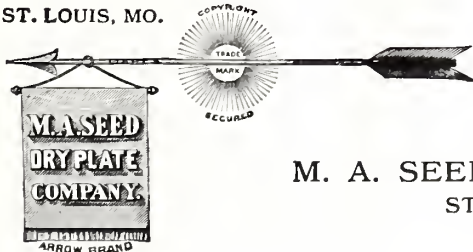
THE many friends of Mr. Yatman, for the past ten years head of the sales-department of the American agency, in New York City, of Voigtländer & Sohn, A. G., will be grieved to learn that he passed away, suddenly, in Memphis, Tenn., April 14 last, while engaged in business for his firm. No man in the photographic trade enjoyed greater popularity by reason of exemplary traits of character, an attractive, grateful personality and conscientious, scrupulous and faithful performance of his duty to his employers. He endeared himself without effort to every one he met, and each and all were the better for having felt the grasp of his kindly and sympathetic hand. His absence will be mourned sincerely by all who knew him, particularly the members of his firm, whose esteem and affection he had so notably won.

If you like PHOTO-ERA it is because you like good work.

Highest Price, Largest
Sale—that tells the story of

SEED SUPREMACY

ST. LOUIS, MO.



M. A. SEED DRY PLATE CO.,
ST. LOUIS, MO.



For "going-away" time—

VELOX POST CARDS

Just slip a package or two in your
vacation outfit and send home
pictures that tell the story.

Nepera Division,
EASTMAN KODAK CO.
ROCHESTER, N. Y.

You know why your Ansco Negatives

are your prize pictures, but are you telling others the reasons? The girl with auburn hair shows it by having a different tone from the one next with black hair. Her blue eyes are full of expression instead of looking like two washed-out spots.

Do you explain that **ANSCO** films are not only orthochromatic but give **HARMONIOUS COLOR VALUES?**

SEND FOR ANSCO BOOK

Ansco Company

Binghamton, N. Y.

PHOTOGRAPHIC MAGAZINE-CLUBS

Regular Price 1 year		Our Price 1 year	With Photo- Era
\$1.00	Abel's Photographic Weekly	\$1.00	\$2.00
1.50	American Photography	1.35	2.35
1.75	Bulletin of Photography (Weekly)	1.75	2.70
2.75	Bulletin of Photography and The Camera	2.40	3.35
1.00	The Camera	1.00	2.00
1.00	Camera Craft	.90	2.00
6.50	Camera Work	6.25	7.25
2.50	Photo-Miniature	2.50	3.50
1.50	Photographic Times	1.50	2.35
1.00	Professional and Amateur Photographer	1.00	2.00
2.00	St. Louis and Canadian Photographer	1.75	2.35
3.00	Wilson's Photographic Magazine	3.00	4.00
3.00	Wilson's Photographic Magazine (New)	3.00	3.65
The Camera	\$1.00	Our Price \$2.65	Bulletin of Photography \$1.75 The Camera 1.00 or Camera Craft or Professional and Amateur PHOTO-ERA 1.50 \$4.25 Our Price \$3.35
Camera Craft	1.00		
PHOTO-ERA	1.50		
	<u>\$3.50</u>		
The Camera	\$1.00	Our Price \$3.00	Bulletin of Photography \$1.75 St. Louis and Canadian Pho- tographer 2.00 or American Photography or Photographic Times PHOTO-ERA 1.50 \$5.25 Our Price \$3.70
or Camera Craft	1.50		
American Photography	1.50		
or Photographic Times	1.50		
or St. Louis and Canadian	1.50	Our Price \$3.35	American Photography \$1.50 The Camera 1.00 Camera Craft 1.00 PHOTO-ERA 1.50 \$5.00
PHOTO-ERA	1.50		
	<u>\$4.00</u>		
American Photography	\$1.50		
Photographic Times	1.50	Our Price \$4.00	Coast to Coast Group Camera Craft \$1.00 St. Louis and Canadian Photog- rapher 2.00 The Camera 1.00 Photographic Times 1.50 PHOTO-ERA 1.50 \$7.00
or St. Louis and Canadian	1.50		
PHOTO-ERA	1.50		
	<u>\$4.50</u>		
Photographic Times	\$1.50	Our Price \$4.35	Professional's \$5.00 Bill Group Bulletin of Photography \$1.75 Wilson's Photographic Magazine (new) 3.00 PHOTO-ERA 1.50 \$6.25
American Photography	1.50		
or St. Louis and Canadian	1.50		
PHOTO-ERA	1.50		
	<u>\$5.00</u>	\$5.35 if Wilson's is a renewal	
Photo-Miniature	\$2.50	Our Price \$4.35	The Big Four Group American Photography \$1.50 The Camera 1.00 Camera Craft 1.00 PHOTO-ERA 1.50 \$5.00
The Camera	1.00		
or Camera Craft	1.50		
PHOTO-ERA	1.50		
	<u>\$5.00</u>		
Photo-Miniature	\$2.50	Our Price \$4.35	Coast to Coast Group Camera Craft \$1.00 St. Louis and Canadian Photog- rapher 2.00 The Camera 1.00 Photographic Times 1.50 PHOTO-ERA 1.50 \$7.00
American Photography	1.50		
or Photographic Times	1.50		
or St. Louis and Canadian	1.50		
PHOTO-ERA	1.50		
	<u>\$5.50</u>		

PHOTO-ERA

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BOSTON, U. S. A.

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CRAMER PLATES

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G. CRAMER DRY-PLATE CO.

ST. LOUIS

NEW YORK

CHICAGO



HANDSOME SUMMER COTTAGE

On North Shore, near Boston

FOR RENT

New house; completely and artistically furnished; six chambers, three bath-rooms on second floor, one on third floor; electric light; furnace; ample closet-room; spacious grounds with flowers and shrubs; very select neighborhood, near Hotel Preston, Beach Bluff, Mass. Address A. B. F., care of Photo-Era.

\$1,200 for Season—May to October

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"Beck Palette"

(Francis A. Deck, New York City)

For RETOUCHING and SPOTTING
for Reproduction

FIVE TINTS IN LARGE TUBES

Monochrome Tints

For Carbon Tissues, Enlargements and
Autotypes

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for air-brush and solar-print enlargements

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IN LARGE BOTTLES

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Our goods are sold by all art-dealers

Send 3 cents for catalogue



These pictures are reduced from full-size cabinet portraits
taken in 1-5 second in an ordinary room at home with

Standard Improved Portrait $\frac{F}{5}$

Price \$5.00

THIS is no supplemental attachment, but a Complete
High-grade Portrait-Objective, mounted for use with
any 4 x 5 or 5 x 7 amateur camera.

☐ Any amount of diffusion or sharpness by simple adjustment.

☐ Give size and make of your shutter with order. Sample
pictures and complete catalog of 15 different photographic
lenses on request.

STANDARD OPTICAL CO.

NEWARK, N. J.



PHOTO-ERA SPECIAL

Regular Price 1 Year	CLASS A	Our Price 1 Year	
\$1.00	American Boy	\$1.00	Any two
1.00	American Magazine	1.00	\$1.65
1.00	Children's Magazine	1.00	Any three
1.00	Cosmopolitan Magazine	1.00	\$2.30
1.00	Garden Magazine	1.00	Any two with one
1.00	Good Housekeeping	1.00	in Class B
1.00	Harper's Bazar	1.00	\$3.00
1.00	Health Culture	.75	Any two with one
1.00	Industrial Magazine	.85	in Class IV
1.00	Little Folks (New sub. only)	1.00	\$2.65
1.50	Metropolitan Magazine	1.50	Any two with one
1.00	Modern Priscilla (Needlework)	1.00	in Class C
1.00	New Idea Woman's Mag. or The Designer	1.00	\$2.00
1.00	Phyllis	.85	Any one with two
1.00	Pictorial Review	1.00	in Class IV
1.00	Success Magazine	1.00	\$3.00
1.50	Sunset Magazine	1.50	

Regular Price 1 Year	CLASS B	Our Price 1 Year	
\$1.80	Ainslee's Magazine	\$1.80	Any two
3.00	Fine Arts Journal	2.00	\$3.05
3.00	House and Garden	2.50	Any two with one
2.00	The Independent	2.00	in Class A
3.00	Outing Magazine	3.00	\$3.70
3.00	Putnam's and The Reader	3.00	Any two with one
3.00	Recreation	3.00	in Class IV
3.00	Review of Reviews	3.00	\$4.05
2.50	The Smart Set	2.50	
3.00	Suburban Life	3.00	

Regular Price 1 Year	CLASS C	Our Price 1 Year	
\$0.50	Designer	\$0.50	Any two with one
.50	Human Life	.40	in Class A
.50	Ladies' World	.50	Any one with one
.50	McCall's Magazine	.50	in Class IV
.50	Modern Priscilla (Needlework)	.50	\$1.70
.50	National Home Journal	.45	Any one with two
.50	New Idea Woman's Mag.	.50	in Class B
.50	Paris Modes	.45	\$3.40

Regular Price 1 Year	CLASS IV	Our Price 1 Year	
\$1.50	Appleton's Magazine	\$1.50	Any two
1.50	The Circle	1.45	\$2.35
1.50	The Etude (for music lovers)	1.50	Any one with one
1.50	Field and Stream	1.35	in Class A
1.50	Hampton's Broadway	1.50	\$2.00
1.50	The Musician	1.50	Any one with one
1.50	National Magazine	1.50	in Class IX
1.50	Overland Monthly	1.25	\$3.60
1.50	Pacific Monthly	1.50	Any two with one
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3.00	Yachting	3.00	in Class A
			\$3.00

Regular Price 1 Year	CLASS IX	Our Price 1 Year	
\$2.50	The Arena	\$2.50	Any one with one
2.50	The Bookman	2.50	in Class A
3.00	Current Literature	3.00	\$3.25
2.50	House Beautiful	2.50	

Regular Price 1 Year	CLASS XII	Our Price 1 Year	
\$4.00	Country Life in America	\$4.00	Any one with one
3.50	L'Art de la Mode	3.50	in Class A
			\$4.00

Regular Price 1 Year	CLASS XIV	Our Price 1 Year	
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5.00	Leslie's Weekly	5.00	in Class A
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1.00	The Argosy	1.50	McClure's Magazine
.50	Art Student	3.00	Motor
4.00	Century Magazine	1.00	Munsey's Magazine
5.20	Collier's Weekly	3.00	The Outlook
3.00	Craftsman	3.00	St. Nicholas
1.00	The Delineator	1.50	Saturday Evening Post
1.50	Everybody's Magazine	3.00	Scientific American
4.00	Harper's Magazine	5.00	Scientific American Supplement
4.00	Harper's Weekly	3.00	Scribner's Magazine
5.00	International Studio	3.00	Theatre Magazine
5.00	Judge	3.00	The World's Work
1.50	Ladies' Home Journal	1.75	The Youth's Companion
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No. in Class	No. of Class	No. of Class	A	A	IV	IV	B	B	C	C	VIII	IX	XII	XIV
1 of A	With	\$1.65	\$2.30	\$2.00	\$3.00	\$3.70	\$1.70	\$3.00	\$3.25	\$4.00
2 of A	With	.....	2.30	2.95	2.65	3.65	\$3.00	4.35	\$2.00	2.35	3.65	3.90	4.65	\$5.15
1 of IV	With	.....	2.00	2.65	2.35	3.35	.....	4.05	1.70	2.05	3.35	3.60	4.35	.....
2 of IV	With	.....	3.00	3.65	3.35	4.35	3.70	5.05	2.70	3.05	4.35	4.60	5.35	5.85
1 of B	With	.....	.....	3.00	.....	3.70	3.05	4.40	.....	.....	3.70	3.95	4.70	5.20
2 of B	With	.....	3.70	4.35	4.05	5.05	4.40	5.75	3.40	3.75	5.05	5.30	6.05	6.55
1 of C	With	.....	.....	2.00	1.70	2.70	.....	3.40	.....	1.40	2.70	.....	.....	.....
2 of C	With	.....	1.70	2.35	2.05	3.05	.....	3.75	1.40	1.75	3.05	3.30	4.05	.....
1 of VIII	With	3.00	3.65	3.35	4.35	3.70	5.05	2.70	3.05	4.35	4.60	5.35	5.85
1 of IX	With	3.25	3.90	3.60	4.60	3.95	5.30	3.30	4.60	4.85	5.60	6.10
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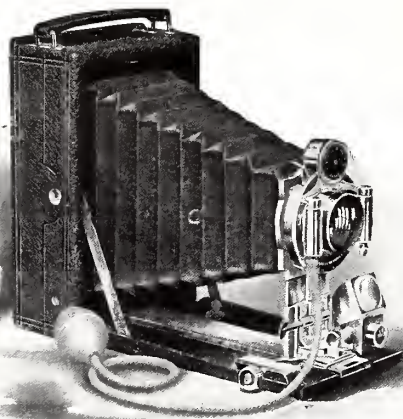
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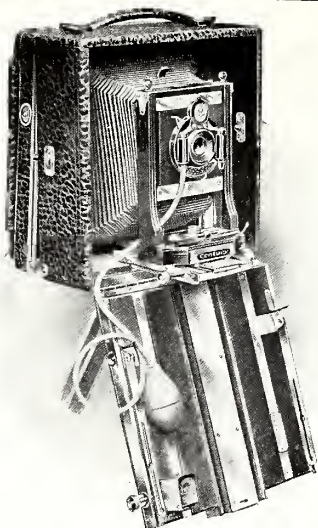
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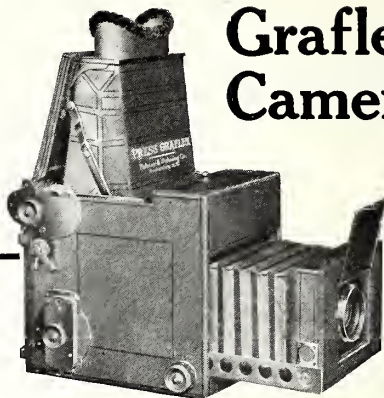
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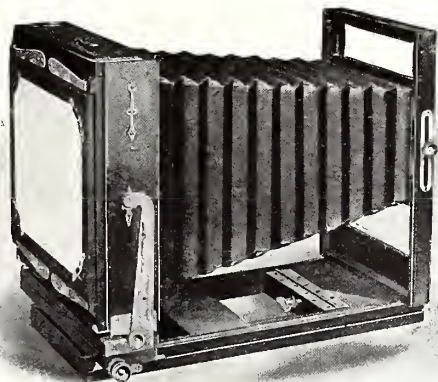
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THE FIRST SEASON.

Every Christmas puts thousands of Kodaks and Brownie Cameras into commission, and with the majority of the recipients the delights of picture making are all before them.

In picture making, as in everything else, success depends upon getting started right. While it is true that the manual accompanying each camera affords most explicit directions for its use, the manual must of necessity be very condensed, and must treat only of the absolutely primary requirements for the obtaining of good results. Realizing this, and that the beginner must work understandingly and be afforded information that he can comprehend and assimilate readily, we prepared a text book for the amateurs, now in its seventh edition, one so complete and so easily understood as to be endorsed everywhere as "the best book for the amateur ever written." "The Modern Way in Picture Making" is its title. It consists of one hundred and ninety pages of expert information and contains many beautiful illustrations.

Let us suppose for a moment that you are inspecting your first Kodak, you have carefully read the manual, and know which is the shutter, the lens, and what a film cartridge looks like and how to load and unload the Kodak. The manual also tells you how to go about making exposures, and just what you must and must not do. So far, most excellent, but *why*. You examine the lens, and realize that the light must pass through it in order to make the exposure. The lens looks to you like a little glass window, now *why* must you only expose for so long and why must you under certain conditions "stop down" as the manual tells you? Turn to page three in the book — here is all about lenses — diagrams showing just how they are constructed, just how and why the lens

collects and concentrates the rays of light so as to form the image on the film, and in fact all the information you need to use it intelligently. The roll of film looks a bit mysterious, you know the exposure will be recorded upon it, and that it is exceedingly sensitive to light, but *why* — turn to page ten — here you will find all about exposures, how sensitive the film is and why, — here also you will learn all about "stops" or "diaphragms" and why the use of a smaller stop will afford you a picture with greater depth, and why using this stop entails a longer exposure, — and so on all through the book: You learn when to make a "snap shot" and when a "time" exposure and why. You learn not only how to make landscapes but are taught as well how to select the proper point of view and why. How to make good portraits, and the difference between a good one and a failure and why. You are taught not only how to make good portraits by daylight but by flashlight as well, and all by the simplest methods. You are told all about development and why — Just how to make the best possible negatives, and why. Then supposing you have made an error in exposure or development, just turn to page eighty-six and here you will be taught just how to correct your errors, and why. And when you are ready to print from your negatives, you will find detailed instructions for all the different papers and printing processes — just what to do and not to do, and why. How to make big pictures from your small negatives, in a very simple way, and why it can be and is done. Then when your prints are made it tells you how to trim them so as to obtain the most artistic effect, and how to mount them in the truly professional manner. How to make pictures in winter and in summer, how to

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enjoy every day in the year picture making—and why.

Any one chapter will be worth more to you than the one dollar the whole book will cost you. Today would be a good time to get it from your dealer.

THE REASON.

Said an old photographic supply dealer the other day, "Before I went into this business I was just simply an amateur photographer, and knew mighty little about any of the whys and wherefores of picture making. Of the chemistry of photography I knew absolutely nothing, but I did find out by good hard experience that some brands of chemicals and chemical preparations afforded me better results than others. For a while, not being able, visually, to detect any difference in the chemicals, I purchased those that could be obtained for the least money and counted myself an economist. The following incident led to my investigating the chemical proposition and altered my views materially in regard to all chemicals being alike. I had purchased a gross of developing paper, exposed, printed and developed it in my usual manner, but could not get good results. I returned the paper to the manufacturer, stating that it was defective; in about ten days time, back came the paper, with a letter from the maker, stating that the paper was O. K., and with some prints on part of the returned paper that were exceedingly fine. I again tried the paper with no better results. Clearly then it was *not* the fault of the paper, my manipulation was the same as usual, so I came to the conclusion that it must be the developer—and then I remembered that I had recently purchased a new developer because it was quite a bit cheaper than that put up by the paper manufacturer. To test this out, I prepared some of the paper manu-

facturer's developer and secured first-class results.

My little lesson, though not so expensive as some others, taught me that there *was* a difference in chemicals, and it did not require much second thought for me to see that the manufacturers of sensitized goods must make developer right—have all their chemicals right, to keep their chief product going—and likewise that they must market their chemical preparations at the lowest possible price consistent with quality."

Save yourself expensive object lessons by using chemicals of tested quality and strength—look for this trade mark :



A MOUNTING SUGGESTION.

A multitude of amateurs are making constant use of Kodak Dry Mounting Tissue, as it so effectively overcomes all mounting difficulties. Just press with a hot iron—and 'tis done. But little trouble to heat the flat iron, and in a few moments it's ready for use. Once in a while though, one is apt to overheat the iron, and then we have to wait a bit till it cools off a little. Here is a suggestion that overcomes even this little difficulty :

Practically every house is equipped with either gas or electric fixtures, and all the lighting companies supply gas or electrically heated flat irons. With either one of these irons it is no trouble whatever to secure and maintain just the right temperature for mounting, as each iron has its own heating apparatus and can be regulated to maintain just the desired degree of heat.

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MEASURE BY RESULTS.

How would you like to hark back to the old days, and make use of a flint and a bit of steel whenever you needed a light? This was the answer given a man who said he preferred the dark room method to the tank because it was cheaper. True enough, the flint, steel and a bit of tow would last a good long time, and cost less than the quantity of matches used in the same time—but how about results—lots of times the spark wouldn't catch in the tow, and you'd whack and whack away on the flint till you were willing to do without the fire through sheer weariness. The only way to gauge the cost of anything is by the results. With the tank, inexperienced or expert, all you have to do is to follow the few and simple instructions to obtain negatives yielding every thing the exposure could afford—the highest possible percentage of good results. With the dark room method, if in experienced, your percentage of good negatives will at first be low—and even if experienced your film is liable to accidents, such as scratches or light fog. Now every section of film you spoil increases the cost of the remaining good ones, and the increase is a good bit more than the mere cost of that individual bit of film, as you lose in addition all chance of turning that exposure into a picture and all time employed in arranging for and making that exposure is lost and must be charged up against the remaining good ones. It don't take much of this to more than equal the cost of the tank, after which your tank costs you nothing, not to mention its tremendous advantages of convenience and comfort.

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The Kodak Portrait Attachment is simply an extra lens that slips on in front of the regular Kodak lens. The attachment in no way affects the operation of the fixed focus Kodak, except that it makes it cut sharp at three and one-half feet and thus throws more distant objects out of focus. With any of the focusing Kodaks they may be used not only for portraits, but for photographing any small objects at close range.

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American Magazine	1.00		PHOTO-ERA .		1.50	Everybody's . . .		1.50
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PHOTO-ERA .	1.50	\$2.35		\$4.00	PHOTO-ERA .	1.50	\$5.35	
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			The Delineator .		1.00			
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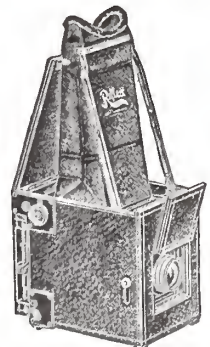
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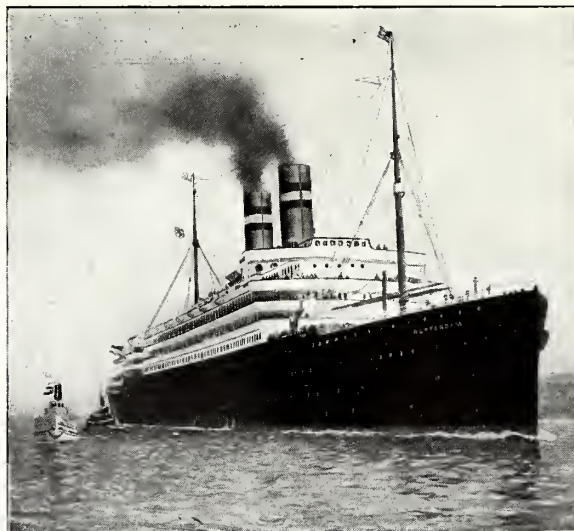
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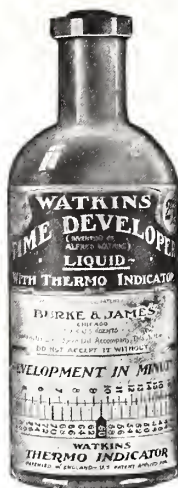
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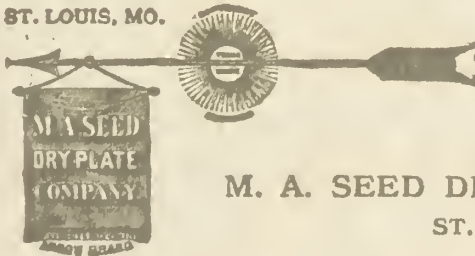
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